SEQUENCE LISTING

<110> Sun, Yongming
        Recipon, Herve
        Chen, Sei-Yu
        Liu, Chenghua

<120> Compositions and Methods Relating to Prostate Specific
        Genes and Proteins

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<150> 60/244,782
<151> 2000-11-01

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<170> PatentIn Ver. 2.1

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ctagacagta gtctcagaca tcttttggag ggtttgttca gacagagact gtgaggcccc 1020
acccctgagt ttccagttcc tgagtccctg atctcagaat ttgcatttca cacaagttcc 1080
cacagtgctg gggctgctgg cccggggcca ctttttgaga atcgctcaag gaccagggtg 1140
tttgcagctt gctgtttggc tgactcctaa cagtgactgt actgaaaggt tttgaatgcc 1200
acgtgttcaa acaaggcagt tcgcaagagt ggtaggaaga gacgttgagg attcgagttg 1260
ttctttcgtt tcgtaaaagg gggtttgagg gaaggttgtg tagctctttt aaaaagagtt 1320
aatggcggcc ggtgcagtgg ctgatgcctg tgg 1353
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<210> 18
<211> 74
<212> DNA
<213> Homo sapiens

<400> 18

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ttggcccttc cagt 74
```

<210> 19
<211> 160
<212> DNA
<213> Homo sapiens

<400> 19

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tcctctgggg gctccaggga ggatctattt gttggcccttt ccagtgctgt gggtgccagc 60
gttccacact tgtggatgcg ccgcctcaac ctctgcccat cttcatgtgt ccatctcctt 120
tgtgtctgcg tctttacctc ttcttcttgt ctgtgttgcc 160
```

<210> 20

9

<211> 746
<212> DNA
<213> Homo sapiens

<400> 20
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gacattacac gctggggacc gaactcagtc cgagatgtag actaggcaat aacgctaatc 120
taatcccggt acgattaacc ccactcagcc cgccctggct taatgtccgc tggtggtgtt 180
tggagacctc gagcatttaa atgaagcgct cacaaacaag agcacaggtt gctttgggat 240
cataaaagag caggagagaa aggcttctgg gggctctcgg aagatggatg tcaacgcaga 300
gttttcaagg ctgagtacgg gttagccagg agaaagaaga gaaggtggag agagcaacac 360
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ggaaggagtg agcagcagca tggtgtgggc attctggtgt ggggaaacca gatcatgaaa 480
tgccatttta aggagtttgg attttatcct gaaaacaatc agcaaatcaa gcatatgcaa 540
atcaagaagt gatttgatcg aatctgatga gaaagccact tttgacaatg tggacaggag 600
atgggggcaga tataatacta tattgaggta acggtggaag gctagatagg agactggtca 660
tccttatggg ggataaccaa gtaatgctaa gaagtgaagc gaaccagttg aaagaaacgt 720
gggcctaggg ttgccagata ctctgg 746

<210> 21
<211> 786
<212> DNA
<213> Homo sapiens

<400> 21
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gacattacac gctggggacc gaactcagtc cgagatgtag actaggcaat aacgctaatc 120
taatcccggt acgattaacc ccactcagcc cgccctggct taatgtccgc tggtggtgtt 180
tggagacctc gagcatttaa atgaagcgct cacaaacaag agcacaggtt gctttgggat 240
cataaaagag caggagagaa aggcttctgg gggctctcgg aagatggatg tcaacgcaga 300
gttttcaagg ctgagtacgg gttagccagg agaaagaaga gaaggtggag agagcaacac 360
ggcagataca aggaaggaag tgctggcttg ggaactgcag gtgctgggta gccagagctg 420
ggaaggagtg agcagcagca tggtgtgggc attctggtgt ggggaaacca gatcatgaaa 480
tgccatttta aggagtttgg attttatcct gaaaacaatc agcaaatcaa gcatatgcaa 540
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tccttatggg ggataaccaa gtaatgctaa gaagtgaagc gaaccagttg aaagaaacgt 720
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tctgtc 786

<210> 22
<211> 391
<212> DNA
<213> Homo sapiens

<400> 22

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taacagttgt ttattgtgta gtttcagcat tataagtttg ctcttagcct caaaggaatc 120
atttgtggga atccttcctt cttcatctta tcttttgtgt aaaataactt gagtgataca 180
agcatacatt tctggggaaa tggaaatatt atttgctact gcaataataa ccaataaata 240
agtattttgc cagtcgtttt tggcatgtat gccttatatt tgtgtgcctt taaaaaaaaa 300
gcgtgtgtgt tttaaacaaa gcttactaat ttagatatgc caatttggta acttcctgcc 360
agagtaagag tttttatgtt ttccttctga g                              391
```


<210> 23
<211> 566
<212> DNA
<213> Homo sapiens

<400> 23
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agcaggtatt tagtaggcac tcaataagct gatgtctacc tgttttcttg cttctcatgg 60
taacagttgt ttattgtgta gtttcagcat tataagtttg ctcttagcct caaaggaatc 120
atttgtggga atccttcctt cttcatctta tcttttgtgt aaaataactt gagtgataca 180
agcatacatt tctggggaaa tggaaatatt atttgctact gcaataataa ccaataaata 240
agtattttgc cagtcgtttt tggcatgtat gccttatatt tgtgtgcctt taaaaaaaaa 300
gcgtgtgtgt tttaaacaaa gcttactaat ttagatatgc ccatttggta acttcctgcc 360
agagtaagag tttttatgtt ttccttctga gacacacctt agtataactt tattttagtt 420
ttctgggcca ttgccatttg gcataacttc aaactagatg tgatggaccc acataaatac 480
ttttaagatt taaaattttt tttatggtgg ggggatatga aactttcaaa accagctgag 540
gtgtcaggtc tggaatttta atttgg                                    566
```


<210> 24
<211> 123
<212> DNA
<213> Homo sapiens

<400> 24
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acgctaccct ccaggaacct ccaaacggtt cagctgtctg gaagctctct gaaccttgtc 120
att                                                             123
```


<210> 25
<211> 505
<212> DNA
<213> Homo sapiens

<400> 25
```
gaattcgcag ctggcagtga attgaaggtt cacaggactc cctccttgag tttggttaac 60
ttgctagagc gggtcagaaa acacagaaat gctacttaca tttgctagtt tattaataaa 120
ggatatcata aaggatacag aagaacagcc agatggagag attcaaggaa cgtgggaggg 180
ggcacggagc tttcatgccc tctccaggca cgctaccctc caggaacctc caaacggttc 240
```

```
agctgtctgg aagctctctg aaccttgtca ttttggagtt ttatggaagc ttttttatgc 300
agtcatgatt gattacatca ccagcccttg gtgatcagct taaccttcag cttcggtctc 360
ctccctggag ggatgggtgt cccaccccgc taatcctgcc ttggtctttc tggtgaccag 420
cccctttтct gaagccatct aagggccccc agccgccact catctcatta gcaaacaaaa 480
gataccacgg ctcaaaaaaa aaaaa                                        505
```

<210> 26
<211> 381
<212> DNA
<213> Homo sapiens

<400> 26
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ggtttтattt cttcaaagga gaggcattaa ttttataaaa catactttta ttttctgaaa 180
ttttcacatc tttcccttct tttacaaccc atggtgtcct ctttcttgta ttcttttttt 240
atttccctga agcaattttt ttaaaagatg catgaacagt aagcattctg atcctaacat 300
ctaaacatgt ctacagtgtg ccctcacact tacctattag ttggctgggt atattcaggt 360
tgaaaatctt ttttttttct t                                           381
```

<210> 27
<211> 4893
<212> DNA
<213> Homo sapiens

<400> 27
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aagagaaagc aggaaagatc caaaattgac accctaacat cacaattaaa agaactagaa 180
aagcaagagc aaacacattc aaaagctagc agaaggcaag aaataactaa aatcagagca 240
gaactgaagg aaatacagac acaaaaaacc cttcaaaaaa tcaatgaatc caggagctgg 300
ttttttgaaa ggatcaacaa aattgataga tcgctagcaa gactaataaa gaaaaaaaga 360
gagaagaatc aaatagacac aataaaaaat gataaagggg atatcaccac tgatcccaca 420
gaaatacaaa ctaccatcag agaatactac aaacacctct atgcaaataa actagaaaat 480
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gttgaatctc tgaatagacc aataacagga gctgaaattg tggcaataat caatagttta 600
ccaaccaaaa agagtccagg accagatgga ttcacagccg aattctacca gagctgggca 660
gagacacaac caaaaaaaga gaatttтaga ccaatatcct tgatgaacat tgatgcaaaa 720
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cctctctcac cactcctatt caacatagtg ttggaagttc tggccaggc aattaggcag 1140
gagaaggaaa taaagggtat tcaattagga aaagaggaag tcaaattgtc cctgtttgca 1200
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12

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gacaacatga ttgtatatct agaaaacccc attgtctcag cccaaaatct ccttaagctg 1260
ataagcaact tcagcaaagt ctcaggatac aaaatcaatg tacaaaaatc acaagcattc 1320
ttatacacca acaacagaca aacagagagc caaatcatga gtcaactccc attcacaatt 1380
gcttcaaaga gaataaaata cctaggaatc caacttacaa gggatgtgaa ggacctcttc 1440
aaggagaact acaaaccact gctcaaggaa ataaaagagg atacaaacaa atggaaaaac 1500
attccatgct cagggggaag gaagaatcaa tatcgtgaaa atggccatac tgcccaagaa 1560
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gaatgaaact ggttccctat ctctcaccgt ctacaaaaat ttactcaaga tggattaaag 4020
acttaaccct ttccccattt gctctgagaa tactcgccag tggcacttgc ggctgcatca 4080
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13

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tttaccccaa agtaaatttg ccacaaaata gcaccctatg attattatgt ttgcattgct 4140
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```

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ggttcaagtt tcgagtttag ggagacccaa aggctagaac ccagatatcc cagattttat 180
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aagacgtaac aggcaactgg atggctccat gcttgcttag tcagtcaaaa atccgtgaaa 360
cacttcttta ggaaaaaggg atagtgactg ggagtaatga tgaagcagtg aaataaagag 420
agggaagagg aagttgcctt gagaagtaat gatcataact aggtgttatt gggataggaa 480
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aaaatcta 548
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<220>
<221> unsure
<222> (54)
<223> a, c, g or t

<220>
<221> unsure
<222> (64)
<223> a, c, g or t

<220>
<221> unsure
<222> (71)
<223> a, c, g or t

<220>
<221> unsure
<222> (353)
<223> a, c, g or t

<400> 29
atccatatgc attnntattc ttattcatat ncgtgtggta ggaacagatg tttnaagtta 60
acanacacat ntcgtatgct ttgttttgaa tttagaagat gcagttgagc ttggaagcca 120
tattaatttg ctcgaactat gttacgtttt atcatatatc tcaattttct ggtcacacca 180
tacacttccc tcactttttc ttaagtttgt gacattttca caccaaattg tcttacaact 240
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<210> 30
<211> 738
<212> DNA
<213> Homo sapiens

<400> 30
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ctgtcttctt tttaattgac agaaggagac cactgcccca gcacttgccc cctaacaagc 420
cattaacctc cagttgtttg gctggaaaat gggaccttga tcccagagag aactgacttt 480

15

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gtgtgaatac tcctggtctg tcctccttat gcaggcagcg ctgggatcga agtggagacc 540
cccgcagtgg gtgaacatcg cagcatccct gggagggttc agcatgttta tcttgggctg 600
aaggttgtaa ttatgattta ggggaatgcc actttataat gactttttct tcgtttcatg 660
taaattaagt tcctagtgtg cgtgggaatg catatgtcac tattcctaag gggagttgga 720
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<210> 31
<211> 496
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (488)
<223> a, c, g or t

<220>
<221> unsure
<222> (492)
<223> a, c, g or t

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aaaagggntc ancaga                                                   496


<210> 32
<211> 1583
<212> DNA
<213> Homo sapiens

<400> 32
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actggtcctg gcatggggtc tcattttcct cagagcagat ggcataagct tcatgaagtg 240
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```

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<210> 33
<211> 284
<212> DNA
<213> Homo sapiens


<400> 33
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catctctttc tcaggctgt ctattctgga gcttgttgaa accattttgt ttggaagcaa 180
tttttaagaaa gaataatttt ttacataaat ctgtggtcca ggaatactct ggcaggtcta 240
aggcataggc attgttagtt gagaaggaaa gaaaatggat catg                  284


<210> 34
<211> 429
<212> DNA
<213> Homo sapiens


<400> 34
taaaataagg tgaaaaatac tctgaacagt actgccaaag gattaatacg cttcaggaaa 60
tagcagtaga agctacttga tgtgaaagaa tggaggaaaa aaggacagat cattagtgaa 120
ctgtggtacg acttcaagca gactaatatg tgtattttga atcctcggag gagagtggag 180
aggaagtatg tttcaagaag caatgaccaa aagtttcaaa tttgatgaaa actatatact 240
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agcacaatct tcaattccta caaactagta atagagaaga ttatgagaaa caattagagg 360
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gtgcggtgg                                                         429
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<210> 35
<211> 612
<212> DNA
<213> Homo sapiens

<400> 35
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atgcctgccc ctctccgctc cttctctcat cttctctgca gtaaaagtca ggtgtttctc 180
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tgggaccacg gaacataccc tgagcagtga ggtgctacag aaccccccagc atctgtctct 360
aacaaaccca aacagaatgg gcagagacag aggcatctag acttcaccag catatattca 420
aattctgact acagggtatt ggtttaccac agaaccagag aagaatagca acacaaatcc 480
tatacgatat cttacggtga tatctataga ccccaaaatg gttaggaggc aagtacaaaa 540
ggctctgaaa ccccttacca atagccgata caatgtaact aaaactacta aatactctta 600
taatattctg ga   612

<210> 36
<211> 856
<212> DNA
<213> Homo sapiens

<400> 36
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aaagaagagc ttattttgac ttgcagacac atgttatcca ggtacctcaa gggaagtaca 180
aagttttgcc aacagagcga acaaaggtca gttcttaccc agtggctctc atccccggac 240
agttccagga atattataag agtatttagt agttttagtt acattgtatc ggctattggt 300
aagggggtttc agagcctttt gtacttgcct cctaaccatt ttggggtcta tagatatcac 360
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ccctgtagtc agaatttgaa tatatgctgg tgaagtctag atgcctctgt ctctgcccat 480
tctgtttggg tttgttagag acagatgctg ggggttctgt agcacctcac tgctcagggt 540
atgttccgtg gtcccaagca ctgttattgc tcagaagctt gttggaaatg cagaatctca 600
ggcccaactc tagacctatg actcagagtc tgcattttaa cagatgtctg tgtgattcat 660
gtgcaggtta gagtttgaga aacacctgac ttttactgca gagaagatga gagaaggagc 720
ggagaggggc aggcatgggc aactgggtgc cccagccaca ttgctgacct ggcctggctg 780
ctgctcccat atggacccta aatgttactt atctcctatt ccccaaatta aatgtaactg 840
aaaaaaaaaa gggcgg   856

<210> 37
<211> 223
<212> DNA
<213> Homo sapiens

<400> 37
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cctggggtga gatttaaatt ggccttgtaa gctaataaaa aatgaagtct attctgaggg 120
caatgtggag tcattgaaag gttcccagga aggaaaataa aaatccaaaa tcatgttata 180
gaaaggtaac tcagccgggc accgtggctc atgcctgtgg tcc 223

<210> 38
<211> 256
<212> DNA
<213> Homo sapiens

<400> 38
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aaaaagtcat tcataatctt accactatta acattttgat gtatctatct gtatgtatgg 120
ctattctttt ttggtaaaac atgatcctag cctatctaat aatttaataa ttggatttta 180
aaaatttaac cattatatta tgggtaacct tacatgtcaa taaacaattc cacattgtca 240
tgctttaaat ggctgc 256

<210> 39
<211> 524
<212> DNA
<213> Homo sapiens

<400> 39
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tcagatggct tcatagagcc cagagctcct ctatacaaag tgtgatcatt cccagtggat 120
ttcttcgctc catagcttta tcattggaga tctggttgat cctgacgtag cgctcaagaa 180
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cacaattttt ttctttcctt ttgatcccaa aagaagaaaa tcatgacaat attctttcat 300
aaatccatta ttacactatt actatgacag gatattgtat gtgggaaata atgaagccat 360
ttgccgtctc ttccccagtt tcctttagag tttctgtgct gagcaaacct ccctgcgaag 420
ttaatcagat gctggacttc ttccctcaat cacaccagtt gcccaggag agagacactt 480
acaggacact cccttctgcc tattcaagta gtgccccttc tact 524

<210> 40
<211> 536
<212> DNA
<213> Homo sapiens

<400> 40
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ccacgtttct cttcagatgg cttcatagag cccagagctc ctctatacaa agtgtgatca 120
ttcccagtgg atttcttcgc tccatagctt tatcattgga gatctggttg atcctgacgt 180
agcgctcaag aaagcactaa atctgaaacg tttaaaaacc aattcacgtc tcctgagaac 240

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gatgttgtat aacacaattt ttttctttcc ttttgatccc aaaagaagaa aatcatgaca 300
atattctttc ataaatccat tattacacta ttactatgac aggatattgt atgtgggaaa 360
taatgaagcc atttgccgtc tcttccccag tttcctttag agtttctgtg ctgagcaaac 420
ctccctgcga agttaatcag atgctggact tcttccctca atcacaccag ttgcccaggg 480
agagagacac ttacaggaca ctcccttctg cctattcaag tagtgcccct tctact    536


<210> 41
<211> 379
<212> DNA
<213> Homo sapiens

<400> 41
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gtgccataac agctgcctga actacagaat ctgggcactg gtgtagctct gtatgccctc 120
cgtgtcagat gctggagatg tcatttgcat tgccagagtt tgccaagggt gcacacagaa 180
agcagattga aaagcaccct cttggaacat ctctccaatg ccttctactc acaaagttta 240
acatcattaa cacgtgacaa agaagaacta tttaatgggc ccagatctat ttatgaagac 300
aatcaagtgg gagtttggag tggataaccc aaatttggat aactggtgaa taataaaatg 360
tatttatttc tgctggtgt                                            379


<210> 42
<211> 1215
<212> DNA
<213> Homo sapiens

<400> 42
tttgggaaat ggatcaaatc acacttttag taaatgttat cactctatag cataagaaat 60
aattattttt tatttatata aaaggctata gtataaaata tatgtatagt aattaaatga 120
acacttgtga acctaatagc catatgaaga aaataacatt tctaatatct ttggatgccc 180
catgtactaa tgacagttat gcttttgcat tttcttgaat tttatgttta tttatctttc 240
ctctgtcatt atttataatt ttatcacaca tggctgtatc ctttacatgt tttggcatta 300
tgtatttttg aacttttgt aaagacaatc ataccatgtg taattttcag ggacttgatt 360
tttttcattg acttttaagg gttcaaatat attatcactg tggctgtagt ttgccatatt 420
ttgctgatat agagcattca ttcacatgag ggtaggattc agggtccatc aagacagaga 480
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cagatgtaag gaattgctct tgtctccatg gtgaatttgg agcagccaat gaagagtccc 660
ctcacattgt ggcctcgctc aaagttaaga agtcgctgta gtgttgccct tgaagaatct 720
gcttcaaatt gacacttcag aactccccag aaacttgtct tctgggccaa tgtgtaaagc 780
tgtttatgaa gaaatgtcaa gccagagggg ctctactaca aatttggcaa aggacaattt 840
caggagaagc tcttggccgc tgggttctcc tggccaccat gaacttcagg aagtgggtgc 900
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tcagatgctg gagatgtcat ttgcattgcc agagtttgcc aagggtgcac acagaaagca 1020
gattgaaaag caccctcttg gaacatctct ccaatgcctt ctactcacaa agtttaacat 1080
cattaacacg tgacaaagaa gaactattta atgggcccag atctatttat gaagacaatc 1140
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20

<210> 43
<211> 754
<212> DNA
<213> Homo sapiens

<400> 43
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cacacacggc gctagaaatt tagcctagcc tgagtcctgg gatgagagaa gagctaaaca 120
aagagacccc aaccgtcccc ttggcccccct gccccgccgt tttgcagttt gccaaccttc 180
tagctagaca gcccccctaag tctccgtgtt gcgagtgaaa gagaattttt ctatttcatc 240
ttcccattga ccgaagcaga aaaattgaac cgaatctacg ccccttgttc tgattcctgc 300
tagaggaaaa cagaaaatca tcccgcaggt ctctttcagt ccctggatgg cgagcgcagc 360
cctgggaggc cacacttagt tctttattgt gaatctctcg ctactcaagt tcgttcggga 420
ccagggcctc ggatggcctc ggttgcccgt aagtacgcga aagaagaggt gaatccaatc 480
gctggcctag aggatagtga tcagacaacc cgaggattac taaacaaggg gcggcggtgt 540
ccctgtctca tggggttggc gtggggcggg gggtaggcag caagatcctc caggctcctg 600
gatgcaaaga gtgagaaaga aagcgcagca tctggcagcc tgcttataaa tgcagccttt 660
cggaagatga aacttgcagt cttaggttgt cctcctttat atccatgttc caatcctctg 720
ggctttcctc gaaatgaata aaattgtgga aatg                                 754
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<210> 44
<211> 955
<212> DNA
<213> Homo sapiens

<400> 44
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ttattractg actccccgra aagktcaaca acgccttctc ttctcagccs caccgcgcgg 120
agwtcaatcg ctttaccta ggtagcctct tgttcagggc tcagggactc ctgtcttaag 180
gtccttctgg ggctcagaag ctgtgttgtg tatgttcttt ccaagaatcc cacctgtctg 240
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gctaaacaaa gagaccccaa ccgtcccctt ggccccctgc ccgccgtttt gcagtttgc 360
caaccttcta gctagacagc cccctaagtc tccgtgttgc gagtgaaaga gattttttct 420
atttcatctt cccattgacc gaagcagaaa aattgaaccg aatctacgcc ccttgttctg 480
attcctgcta gaggaaaaca gaaaatcatc cgcaggtct ctttcagtcc ctggatggcg 540
agcgcagccc ctgggaggcc acacttagtt ctttattgtg aatctctcgc tactcaagtt 600
cgttcgggac cagggcctcg gatggcctcg gttgcccgta agtacgcgaa agaagaggtg 660
aatccaatcg ctggcctaga ggatagtgat cagacaaccc gaggattact aaacaagggg 720
cggcggtgtc cctgtctcat ggggttggcg tggggcgggg ggtaggcagc aagatcctcc 780
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gcagcctttc ggaagatgaa acttgcagtc ttaggttgtc ctcctttata tccatgttcc 900
aatcctctgg gctttcctcg aaatgaataa aattgtggaa atgaaaaaaa aaaaa         955
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<210> 45
<211> 503
<212> DNA
<213> Homo sapiens

<400> 45
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atcttgtcat ataattttaa aacagctggg atttagattg atactgcatt gaatttacct 120
atttatttgg gggagaatta tgccaaatga caatattgtg tcttgccatc taggaatatg 180
agattttccc attttttcc agtctttttt atcacctta gaaaagctat attgttttct 240
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tttatgaatg gaatattttt cattgtattt tctaattgtt tgctggacta tatggaaatt 360
gatttttggc atgctgatat atccagcaaa aaacttact gaactctaat gttttgtttc 420
tgagaggttt ctgatggtct gtttcttgca gggatgtctg aatcttccaa gtaaaaatgn 480
gtagactcct attttcctta gac 503

<210> 46
<211> 206
<212> DNA
<213> Homo sapiens

<400> 46
ggctgacaaa atactcacct ttacctttat ttttgcattt tatactcaca accatatttt 60
ttttggcccc cttccctta ttttaactca taactgatac ttaaaggtgc tctgccttat 120
taaatcagct cctaggctgc aagtgcataa tatttaaaaa tttgcaactt tgactttta 180
aaaatctggt cttggtatgg agcaac 206

<210> 47
<211> 394
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (93)..(119)
<223> a, c, g or t

<400> 47
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tttcactgct gtctagtggg ggacaaatta tannnnnnnn nnnnnnnnnn nnnnnnnnna 120
cagatgactg acaactgtta acttctcact atgtgccagg gactattgtg agttaactca 180
cttaatcctc atagccaccc tttgaggtac ctataattat tctatagatg aagaagcaca 240
gacagagagg ttaattaaga gcaagtgttg gagttgaact cctgatattt cccctttaa 300
gctgaagtcc atgacctgct tcccaattcc tggcagccac acagttgctc tgcnatttt 360
cagtcttcta actttcaaca tagttacttt ttac 394

22

<210> 48
<211> 135
<212> DNA
<213> Homo sapiens

<400> 48
gtcacataac atttccggtg gccattaggg tgagctttaa gatctaactg gccaaggggg 60
cttaagtaca atctttgatc agtaagtggc ttatgcctac ccagagacag cccctcagta 120
gccaggctgt gaaag   135

<210> 49
<211> 394
<212> DNA
<213> Homo sapiens

<400> 49
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gtactctgat ccaggagcac ctcctaggta gtcaggcttt aaaataaaat cacactcatc 120
cctgacagtc tggcagaata tgtgcatgcc caaggttata ccctctctgg actgagtgca 180
gtatgaagat ccaactatta gtcctggctg aatgggaagc caaaatataa actccttcag 240
ctttgatagc aatctgcaag tcacataaca tttccggtgg ccattagggt gagctttaag 300
atctaactgg ccaaggggc ttaagtacaa tctttgatca gtaagtggct tatgcctacc 360
cagagacagc ccctcagtag ccaggctgtg aaag   394

<210> 50
<211> 730
<212> DNA
<213> Homo sapiens

<400> 50
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acaggaacag tgcctatggg tttaattagt gcttagttgt tttgttttgc tccttcattt 120
ttggctgaga aattaatgat atttggaaat atctggagtt ccttttttctt gaaaaggtca 180
caaaccactg atttaaagag gatgactttg aaaatttagc tcacaatagt tgtgaaataa 240
atgtagtagt actttgtagc ttaaattccg gtaaaattat cactttgtca ttttgatctc 300
agaggagagc tattatttgt agcaaactac aaatataaac taacgtggaa ttcctgtgga 360
tcaaggcatg atacatattt atatgtgtgt gtgtgtattc ttttctgaac caatatgaca 420
ataagccatc tactctgaag tacagaggca gccatctatc attgacttat aaagctttga 480
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cttagctgag tgggggccac catgccttgc tcaaagcagg ttctccagtc agcaaacatc 600
agtcaaggca gaatctatag gcagtgccta ggaacacaga cgcatttcag atggtgagga 660
aaaagcaagt gaagcacaca atttgaatct tggaaatata ctttgaatcc atggggttta 720
gaagacacag   730

23

<210> 51
<211> 953
<212> DNA
<213> Homo sapiens

<400> 51
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gcccccgggg agggctgagg cgtcagggtg acggctccac tgcccactca cctgcgacct 180
caaagcccct ctcctccttg gggtgctcct gacagccacc tccagggcag gcgagtggcg 240
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ggccatgcgt ctaagacaca ggcagagggc gctgcccacc acgctggcga cggcctcaaa 480
gccctgttc atgcctggga cagcgcccaa ggaccttgct catgcctggg acaggcccca 540
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tgagtcacag tgactatata actcttactc ccactttttgg gacactttt gagagggaac 780
agggatccta tctaactaca cgggacagac atcgcccaag accgtcctga gcaagcctgg 840
acgctgtgac cctaacgatg aaggtgtccc gcagacaatg tccggggcag gcaccatgct 900
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<210> 52
<211> 527
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (224)..(365)
<223> a, c, g or t

<400> 52
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atggccagtt taaggccgta atgtctaaat gggcaactat gctaacaata aaaaaagaac 180
attgaggtct attaatactg ttcacaaata tggtgggttg tttnnnnnnn nnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360
nnnnntcacc aatttacttt aacaatgcag agagaaagat ccattaacgt aagtgtttgg 420
atgagttgaa catgtgaaat atagattatt aaagtattga atgcatttta gatgtgggtt 480
atatatgggt tgtacttcat gaatattaag tctcccacag caaactg 527

<210> 53
<211> 406

24

<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (308)
<223> a, c, g or t

<400> 53
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ggtgagaaac agcaggtatc caatattctg aaggatggca ttctggggtt gcctaggtta 120
ctcagcagga tgcattatca cattatgcct catattcttt tggagtaagt aaaaatgggc 180
aagatgtgag acatggaagt taagccttct gataagaaac ttgcatcatc atcactataa 240
tcaagaatgt gaaaagattt atttacacat cactttttaa ttcatttatc cagtaatgtt 300
agatgtgncc tgtctatgga actgtactag atgttgaagg aggtgtacct agaaatattc 360
agtctggttg aaaatatagg agatatacaa atgggcaggg tgtggt 406

<210> 54
<211> 372
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (293)
<223> a, c, g or t

<220>
<221> unsure
<222> (304)
<223> a, c, g or t

<220>
<221> unsure
<222> (367)
<223> a, c, g or t

<400> 54
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caaagtaata tgagagagaa cattaaactg tgttgtattg tgataaaatt cttggaatct 120
taaacatcat aatacctcag gttatttggt cactgctctt gctagcaagg ctaagtagtt 180
tcagtccttt agagctttat atttaatgga aggttaaaaa caaaaacggg atgggaagga 240
acgtatcgcc taatacataa ttcttgtcat tagatgattt ttcctgtaaa ggngctaata 300
aggnatattc ctcggaattt attgtacatt atggattttg atatatactt agtaaaggtt 360
aagtaangga ct 372

<210> 55
<211> 537
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (214)..(326)
<223> a, c, g or t

<400> 55
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actatgtttt taagaagcct cagaaaacag taatatatga tcctataggc ataaaattat 180
ttatgatatc acacggaggt ctatagaatt tatnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
nnnnnnnnnn nnnnnnnnnn nnnnnntagc aacatttgaa tggtggccag tgtaatggag 360
agtgcagatc tagaagaaca aacacaactg gtaacagagt tacctggggg aaggttgagt 420
ttggggatgg agggctacag aaactttaga gttctgcaga acttttaaca tttttacaat 480
gagaatacat catatattat ctagctaatt taaaacaaat acattgttaa aatgaaa   537

<210> 56
<211> 847
<212> DNA
<213> Homo sapiens

<400> 56
caaaattaaa cttagacttt ttgaatttat tagctgtttt tgtgaagatt aattttagaa 60
agctaaaatt aaacactgaa agtaagttac tttattccat acggtctctg tccagtttta 120
gcactaaaat cagttcaagg atgccaatcc ctaattggcc aaatagcctt accattcttg 180
ttttcttctc caaatttgtt tttttgctgg tcagataact tccaatctct aaaatattcc 240
tgaaatgata aattttatg atacagcata gaataatatg tatgtggaga cttgaaggag 300
tcaaatctca atgagccttt tgtagggctt aacgattgtt aaaaggggc caaaagggca 360
ctaattttg gaaagtgtat gtttgtttat ggtggtgaat gtgtagagag ggtgaaaagt 420
aaaggaaaag tagaacaaga agaaagaaaa ctgataggta tgacgatgag agagaaagaa 480
aatgggaaga gagcgcaaga cgtgcagatt tagaaaaaag gttgagggaa acatattcaa 540
aagggaaaaa gaaagcaggg ggaaaataca ttagaggtgt tgaaattagt aggcactcac 600
agaggtgcta atcgagagtt ctgttgggct cctgtcatgc tgctattaaa gagcattagc 660
agctaagaga tctaaattct agtcctagtt ctttgtgttg ccgtggagaa gtcagttaac 720
ttacatgagg ctcaggttcc ttacctgtgt gtaaaatggg aacattgaac taggtgatct 780
ttaagatccc ttccgggtct aaaattgttt gacattatct tggtggtcag taactgtgag 840
aaacaca   847

<210> 57
<211> 1448
<212> DNA

26

<213> Homo sapiens

<220>
<221> unsure
<222> (1420)
<223> a, c, g or t

<400> 57
caaaattaaa cttagacttt ttgaatttat tagctgtttt tgtgaagatt aattttagaa 60
agctaaaatt aaacactgaa agtaagttac tttattccat acggtctctg tccagtttta 120
gcactaaaat cagttcaagg atgccaatcc ctaattggcc aaatagcctt accattcttg 180
ttttcttctc caaatttgtt tttttgctgg tcagataact tccaatctct aaaatattcc 240
tgaaatgata aattttttatg atacagcata gaataatatg tatgtggaga cttgaaggag 300
tcaaatctca atgagccttt tgtagggctt aacgattgtt aaaaggggggc caaaagggca 360
ctaatttttg gaaagtgtat gtttgtttat ggtggtgaat gtgtagagag ggtgaaaagt 420
aaaggaaaag tagaacaaga agaaagaaaa ctgataggta tgacgatgag agagaaagaa 480
aatgggaaga gagcgcaaga cgtgcagatt tagaaaaaag gttgagggaa acatattcaa 540
aagggaaaaa gaaagcaggg ggaaaataca ttagaggtgt tgaaattagt aggcactcac 600
agaggtgcta atcgagagtt ctgttgggct cctgtcatgc tgctattaaa gagcattagc 660
agctaagaga tctaaattct agtcctagtt ctttgtgttg ccgtggagaa gtcagttaac 720
ttacatgagg ctcaggttcc ttacctgtgt gtaaaatggg aacattgaac taggtgatct 780
ttaagatccc ttccggctct aaaattgttt gacattatct tggtggtcag taactgtgag 840
aaacacattc ctgaggaaaa tttgcagcta tagttgactt caggacagca tgtttaggga 900
gtagaatgta agctccctga gggtaggggc cttttctgtt gtgttcactg ccatatcccc 960
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gtgtgcttta gggagggaaa agacagattt cttctgaaga aatcttaagc aagctgattt 1140
ttaatcctta ttcttcctta ttttgtccca gattcaaaga aagtggcttc agctagtgac 1200
attctcatag tcacaaaact tacggtgact gtagacatac ataaaagtgt acatgtaatc 1260
taggccagtt ccctttaagt atcttacaga aaggcaggac caagcttagg tctccatgga 1320
atctgagtga aaagtatata catggaatat attagttata ttgaattaga ttgattggat 1380
taaaattcat tcagttgaga ggcacagtta gtctacaagn ctgagataca ggctgccaaa 1440
tttaagat   1448

<210> 58
<211> 354
<212> DNA
<213> Homo sapiens

<400> 58
acaaagatta ggacaagtat tccaggttct gacttacttc cttggagcct ctccttgaag 60
agctctgttt tctgaggacc gagtctaaaa actgaggccc tcagccactg gggacatgaa 120
atttcttgga aaggaaaaat taagtcttgg gttgactagc aaaacctgac cttttcaagc 180
tctagctcta acatcttctt gtctctgagt tgctgctgaa agacaaaaat atgagagttt 240
gggacccatt tctcactctc attctaatca agcagcagat attcattatt aatgaaatat 300
ataactatgt taatttaatt gatataggta ttgtttccag gatattcatt taaa   354

27

<210> 59
<211> 586
<212> DNA
<213> Homo sapiens

<400> 59
cactgcaaat gctactcgag gcagagagac ggaggaggtg gaatgtggcc tgtttccaca 60
ttgggccctt cggttttcca cagtgtcttt cactggcctt cttgaaatcc aggaaacaag 120
agagctggaa aatattggtc tctgagttat agcacagggc agagaagggc agaaaatgca 180
cctgaaagaa aacaggcaag tgacctatat accttctttt aggccttctc cctcttgtgt 240
accgcatagc atattaagtg taaaattatt ataacactca ttgtatcacg tggctgtgtt 300
ttgcttacat atccatctca acttttatct cttgctttcc ccagcaccag cactggcaca 360
ttgcaatttt tgaacaaaag attttttgaac taatgaataa ataggtgatt agatttaatt 420
caatttcaat gaatgtttat taggtcatta ttaggatatt gggtcagaat gttctagttg 480
attctacata catcacctcc ttcatagagt atcctgaaag gcccacaatt cactcgcaca 540
ttctttctcc taactgtcaa attttaccaa ttaaaaagta ttatca 586

<210> 60
<211> 610
<212> DNA
<213> Homo sapiens

<400> 60
gtgtggagga gacgcagcag ctaccactgc aaatgctact cgaggcagag agacggagga 60
ggtggaatgt ggcctgtttc cacattgggc ccttcggttt tccacagtgt ctttcactgg 120
ccttcttgaa atccaggaaa caagagagct ggaaaatatt ggtctctgag ttatagcaca 180
gggcagagaa gggcagaaaa tgcacctgaa agaaaacagg caagtgacct atataccttc 240
ttttaggcct tctccctctt gtgtaccgca tagcatatta agtgtaaaat tattataaca 300
ctcattgtat cacgtggctg tgttttgctt acatatccat ctcaactttt atctcttgct 360
ttccccagca ccagcactgg cacattgcaa ttttttgaaca aaagattttt gaactaatga 420
ataaataggt gattagattt aattcaattt caatgaatgt ttattaggtc attattagga 480
tattgggtca gaatgttcta gttgattcta catacatcac ctccttcata gagtatcctg 540
aaaggcccac aattcactcg cacattcttt ctcctaactg tcaaatttta ccaattaaaa 600
agtattatca 610

<210> 61
<211> 595
<212> DNA
<213> Homo sapiens

<400> 61
aggaaatcaa ttaattttct tgaaaactgg aacatgaaat aatcaaacat ttattctgcc 60
ttccttatat gaactatact actgaatagc caaatagatg aggggaagta ctttttgta 120
atagtattct aactaatcaa ttaaaaagtg aaaataattt ttcagttctt attaaatgga 180
tggacattaa acatcagtag ctactaagat tgcaaagtca gtcaaacatt agctatggat 240

28

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gttatagatg tcccaaagga atcagtcctg aatttgattc agtctcctgg atctagctgc 300
ctatgacagg aaataaagaa taacatgtng gattgcagca tgagtatgta atctgcaaaa 360
tccagactat gggaagcttg tcaggtcaaa gggcccaggt tctttaaagc agaacttgtc 420
aggaaatggg tggaggaagg accaatagat taagacattc aagaaatatc caattttta 480
atggatgaga ctaaaaaact gtgttcaagg atgcacattt gagtgacaaa actctgaaaa 540
gacccaagga agtgattact attaaagtca aaacaacagt tggttatggt aggag       595
```



```
<210> 62
<211> 810
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (329)
<223> a, c, g or t

<220>
<221> unsure
<222> (691)..(752)
<223> a, c, g or t

<400> 62
aggaaatcaa ttaattttct tgaaaactgg aacatgaaat aatcaaacat ttattctgcc 60
ttccttatat gaactatact actgaatagc caaatagatg aggggaagta tcttttgta 120
atagtattct aactaatcaa ttaaaaagtg aaaataattt ttcagttctt attaaatgga 180
tggacattaa acatcagtag ctactaagat tgcaaagtca gtcaaacatt agctatggat 240
gttatagatg tcccaaagga atcagtcctg aatttgattc agtctcctgg atctagctgc 300
ctatgacagg aaataaagaa taacatgtng gattgcagca tgagtatgta atctgcaaaa 360
tccagactat gggaagcttg tcaggtcaaa gggcccaggt tctttaaagc agaacttgtc 420
aggaaatggg tggaggaagg accaatagat taagacattc aagaaatatc caattttta 480
atggatgaga ctaaaaaact gtgttcaagg atgcacattt gagtgacaaa actctgaaaa 540
gacccaagga agtgattact attaaagtca aaacaacagt tggttatggt aggagggaaa 600
agtattgtat aggcatgggt agtatcgcac agttaaaata actcattaag ctaagtatat 660
ttgtatttgt ttgctgtatc tgttttattt nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 720
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnggccgagg tgggctagat ctacctgtag 780
gtcaggtagt tcgagaccta gcctggccat                                  810
```



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<210> 63
<211> 1215
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (778)
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<223> a, c, g or t

<220>
<221> unsure
<222> (801)
<223> a, c, g or t

<400> 63
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tattgcagat agtttcacag gtcacagaac cttaaaaagg atttaaaggg catgtcttgt 120
gtagcatttg ttcctttgaa aatgatgctc ctttcccatt ttttagtaat tgaagaggat 180
agaaaggttt tctcattgct tacgtttcac tgaattctct gcagcccctt ttcccacaga 240
tgtttcagcc aaacctgtat ggagggaggt gacatggcat ggcttgctgt ttaaaacagt 300
tacggtattt tgtgcttccc ttttgagtgt gtccaagttg aacaaaagga gagcctctag 360
aacgcatggg aggggaaatt tgggaccagg accttttaca tgctggggga aactgacagg 420
actcagtgag gaaagacttt tgtttgtgtt ttcttctctc tctttctctg cagagcgcat 480
gatctatatc aacatgcttc ctggtcatac taaagaatct cagctagtgg tgatctacca 540
gtttctgtga ggattattac tgtattaatg cattttggga ggtgttcatt cagttcagag 600
tgaatgcttt ggaagacatt gcacagcttg aatcatgggg catcagggat agcttgactt 660
ttcctgaagg atgtatggtg gccatagact agttggttgg aagcttgcat tctgtaagcc 720
tggtatcaaa tgcacacatt aagccatgtt ttcctaacag aatgaacatt ttttacannn 780
nnnnnnnnnn nnnnnnnnnn ngctcagaac cttagaacag gatgatatca tcagaaagaa 840
taagggaaag taggccagaa ttagaaaaca tcaagatcat tggaaaactg ctatacttgc 900
attgcttcct ccttggttca ttgtacaatg gccttaattc aggtgacatt gcaagtacct 960
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ttgcagcaga caaaattgtg acatattatt gctaaggaga ttgacaactc ataagaataa 1080
atattgtctg tgggcaagat ttttttgttt gtttccagag aacattatta atttcagatt 1140
atattaaaga cttacatggc aggagacttt cttctagata actaaaaaca ctgcgtagaa 1200
agttatacta tgttt 1215
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<210> 64
<211> 1841
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (774)..(797)
<223> a, c, g or t

<400> 64
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tattgcagat agtttcacag gtcacagaac cttaaaaagg atttaaaggg catgtcttgt 120
gtagcatttg ttcctttgaa aatgatgctc ctttcccatt ttttagtaat tgaagaggat 180
agaaaggttt tctcattgct tacgtttcac tgaattctct gcagcccctt ttcccacaga 240
tgtttcagcc aaacctgtat ggagggaggt gacatggcat ggcttgctgt ttaaaacagc 300
tacggtattt tgtgcttccc ttttgagtgt gtcaaggtga acaaaaggag agcctctaga 360
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acgcatggga gggaatttgg gacaggacct tttacatgct gggggaaact gacaggactc 420
agtgaggaaa gactttTgtt tgtgttttct tctctctctt tctctgcaga gcgcatgatc 480
tatatcaaca tgcttcctgg tcatactaaa gaatctcagc tagtggtgat ctaccagttt 540
ctgtgaggat tattactgta ttaatgcatt ttgggaggtg ttcattcagt tcagagtgaa 600
tgctttggaa gacattgcac agcttgaatc atggggcatc aggatagct tgacttttcc 660
tgaaggatgt atggtggcca tagactagtt ggttggaagc ttgcattctg taagcctggt 720
atcaaatgca cacattaagc catgttttcc tagcagaatg aacatttttt acannnnnnn 780
nnnnnnnnnn nnnnnnngct cagaacctta gaacaggatg atatcatcag aaagaataag 840
ggaaagtagg ccagaattag aaaacatcaa gatcattgga aaactgctat acttgcattg 900
cttcctcctt ggttcattgt acaatggcct taattcaggt gacattgcaa gtacctttgg 960
tgccctccag aaattaagcg catttggtat tgtgtgtgca gcttgttttt cttctgttgc 1020
agcagacaaa attgtgacat attattgcta aggagattga caactcataa gaataaatat 1080
tgtctgtggg caagattttt ttgtttgttt ccagagaaca ttattaattt cagattatat 1140
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agacattatc gaggaaattt ctggctgatt tctgggtcag tgccacagca gatcaattgg 1320
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gtgaaaatgg aagactagca ggcaagcctg tgggaaccat ctgcgtcact ggcatctggg 1680
aaaagcaacc acccagggca ggatgccacg ggacagggga gcataagcaa ctgaaaatga 1740
agcggccaca aggccagagc ttggctcaca ctcagaattc gccaccctac catctcctgc 1800
caggaatatt ccaagaatgt ggagtaacag gggacagcta g 1841

<210> 65
<211> 257
<212> DNA
<213> Homo sapiens

<400> 65
catgcctggc cttccacatg aaatttaaag tcagcttctc aatttctatt gttttggttc 60
taaaatagat gtaagggttt taaagtgagc aacaatctct aggagccaga ttttttgagtt 120
ttctctccca aagctgcttt tcccctagtc ttctccatct tagtgaatgg caacttcact 180
cttccagatg ctcacaccaa acaccctgaa atcactcttg attctttctc ttatacccca 240
cattaaattc ctcagca 257

<210> 66
<211> 327
<212> DNA
<213> Homo sapiens

<400> 66
caggcagtga tgcgaggtga tctagaggat cccgataccc attatgtgcg tgatcatagg 60
catgagccac catgcctggc cttccacatg aaatttaaag tcagcttctc aatttctatt 120

31

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gttttggttc taaaatagat gtaagggttt taaagtgagc aacaatctct aggagccaga 180
ttttgagtt ttctctccca aagctgcttt tcccctagtc ttctccatct tagtgaatgg 240
caacttcact cttccagatg ctcacaccaa acaccctgaa atcactcttg attctttctc 300
ttataccca cattaaattc ctcagca                                    327
```

<210> 67
<211> 487
<212> DNA
<213> Homo sapiens

<400> 67
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gtaagtgttt attattatta cttctcattg tagtctcctt tatgaaacgt gtgtgcatag 60
cctgtctgga ggatgacttt ttgtctttta aagagagaag ctgtactact tctactgtac 120
cagaaattca tctgagagca ggttactttc tcattgtaaa gtccatgcaa gccagataaa 180
cctataggt agcacttcct taattagttt acaatttctg aggataggtt ggtgggagta 240
aactgcctct gagtgttcac ttctctggga actgtcccgt ctgttgttgt gtatcatatg 300
ttctagtgca ttttttttca gttatgtcct ttcccacaaa gcagtttggt gtaaccactg 360
taatcccagt aagctatggt tggggtctat gtataggaat gtgcaccctg aaattcattc 420
acttattcag cacaatttta tttgagcatc tactaagtgt tagggcactc tctgtggtca 480
gatatat                                                        487
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<210> 68
<211> 1006
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (317)..(479)
<223> a, c, g or t

<400> 68
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aacattttat aaataacaag aaagagtatg ctactttcaa caatatcatg tttaatatac 60
ataaaatata taagcatgta aaatatatgt aacatatata cttaaaatgc atatacatta 120
tatacatttta actaagtaca aatataaatg tgcctaagag gtaagcttca aatggaattg 180
agggaaataa gcttcaaatt catttctcat atattcatca ttttatttgt tcatatgtta 240
tgtttttgtt gttgtgtatg ggagaggtac tgatttaggt tacttctttg tagtagagga 300
tggtagttaa aaatacnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnna 480
atataatgtg ttggatcagt gcttatgtgg aagcactagg taagtgttta ttattattac 540
ttctcattgt agtctccttt atgaaacgtg tgtgcatagc ctgtctggag gatgactttt 600
tgtctttttaa agagagaagc tgtactactt ctactgtacc agaaattcat ctgagagcag 660
gttactttct cattgtaaag tccatgcaag ccagataaac ctatagggta gcacttcctt 720
aattagttta caatttctga ggataggttg gtgggagtaa actgcctctg agtgttcact 780
tctctgggaa ctgtcccgtc tgttgttgtg tatcatatgt ctagtgcat tttttttcag 840
```

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ttatgtcctt tcccacaaag cagtttggtg taaccactgt aatcccagta agctatggtt 900
ggggtctatg tataggaatg tgcaccctga aattcattca cttattcagc acaattttat 960
ttgagcatct actaagtgtt agggcactct ctgtggtcag atatat        1006


<210> 69
<211> 126
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (70)
<223> a, c, g or t

<400> 69
cccctttact ttttataagt attgatagct ccctttttcat gcctgaggta ttaatctgag 60
tcttctcttn ttttttttctt ggtcagtcta gctaaacagt tgccaatttg ttgatctttt 120
ccaaga                                                    126


<210> 70
<211> 448
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (364)
<223> a, c, g or t

<220>
<221> unsure
<222> (377)
<223> a, c, g or t

<400> 70
ttttttttt ggaaaagatc aacaaattgg caactgttta gctagactga ccaagaaaaa 60
aaaaagagaa gactcagatt aatacctcag gcatggaaaa gggagcgaga ctctgtctca 120
aaacaacaac aacaaaaaga tacaagcaaa acaaatcaag aaacgtatac aaaggattat 180
acaccatgac caagtgggat ttatcccagg aatacaaggt tggtttaata tttgaaaatc 240
aatcgatgaa acacacaaaa ttgagagaat aaagatgaga agcttaatgt agggtaaaat 300
gtctgaagct ctaagtgaaa ctgttgataa gctgggtttt ctactcttgg aacgctagag 360
aggnagagac acttagntac ttagtaacag caaaaagccc ggccaaaaag tagaactcaa 420
gtgctttaga aactctgtgg gcagggggt                           448


<210> 71
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<211> 91
<212> DNA
<213> Homo sapiens

<400> 71
ttcggctcga gtaggaaatt aggaattaag taactgccct tcatactggt aatcttgata 60
tgttgaagga agtgacttgt tataagatag a 91

<210> 72
<211> 401
<212> DNA
<213> Homo sapiens

<400> 72
aacaacaaaa aaaatccatt tataaataaa aatattttta aaaacaaaga gcttgcgatg 60
ggcctgcaga cactcagcta aagatgtctc ataggttgtc cttgcagcta agtggggcca 120
tgagactagg ctttaaccag tgggctgaga gttaaagtga tttttgccat tctgtttta 180
ggaatggatg tgtctgcctg tggcagatta tattttcaa agatgaccac aaaaatatct 240
cctatctcat gtgtgattct acagtggggt ctatgtcccc tcttcttgaa tgtgtgtgca 300
cttgtgactg ctttgactaa cagagtatgg ggtaggatgc catgtgactt ctgaggctgg 360
gtcacggaaa gcaattgtta taagttaaat tgcatgtccc c 401

<210> 73
<211> 422
<212> DNA
<213> Homo sapiens

<400> 73
acatatgtag gtttgttata taacaacaaa aaaaatccat ttataaataa aaatatttt 60
aaaaacaaag agcttgcgat gggcctgcag acactcagct aaagatgtct cataggttgt 120
ccttgcagct aagtggggcc atgagactag ctttaaccaa gtgggctgag agttaaagtg 180
attttgccaa ttctgttttt aggaatggat gtgtctgcct gtggcagatt atattttca 240
aagatgacca caaaaatatc tcctatctca tgtgtgattc tacagtgggg tctatgtccc 300
ctcttcttga atgtgtgtgc acttgtgact gctttgacta acagagtatg gggtaggatg 360
ccatgtgact tctgaggctg ggtcacggaa agcaattgtt ataagttaaa ttgcatgtcc 420
cc 422

<210> 74
<211> 471
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (392)

34

<223> a, c, g or t

<220>
<221> unsure
<222> (459)
<223> a, c, g or t

<400> 74
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cttctatttt aagtagaaat gcctatgtga tactcaaaaa ttcttatttt agttgtacat 120
cagaaagttc tgtttcacca gatcatgttt acagatagag tatgaggcat tgatccatga 180
gaggacttca ttcaactaac ctttactgag cacctactgt atgcaatgca ccatttccga 240
tgctaaaaca ctgcaaagag gcagacagaa atccctaccc tgatggaatt ggcgttctgt 300
gacacctctc taagtgtgtg ccccctcccc tagtgctgtg acttacaatt ctttttaaag 360
ccattattat tctggagaac ccaaggattg cntctttctc agagctctaa tgtcaataac 420
cctatcattc tttgtcatag actttgcgaa ctgagggant cacatttaat g   471

<210> 75
<211> 214
<212> DNA
<213> Homo sapiens

<400> 75
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ctcccctaaa tttttcccac tggttgaaga gagatctgga tgactaaacc tcccatcttg 120
acaccttgga gtttgttaag caggtcccct ctctgtagct tccaaagcca tgaagaaggg 180
gaaggaaggc caagacaggg gtagatagag gtgg   214

<210> 76
<211> 214
<212> DNA
<213> Homo sapiens

<400> 76
cctccattca ccatctacag aatggaagag acgctaatgt caccctggaa ggtgttttga 60
agggtaatgt gtgtaaaggg ccaaacaagg ccccacacag ttaaggactt aatcctgccc 120
ggccccggga gggcttccgg catcttgggg ttcccctcaa aggatggcct gggcaggact 180
tcttaaaaac aaacaggcgg ctgggcgcgg tggc   214

<210> 77
<211> 552
<212> DNA
<213> Homo sapiens

<220>

<221> unsure
<222> (273)..(357)
<223> a, c, g or t

<400> 77
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gggctactcc ccagcctctg gtttgcccca tagcagcccc ttgggcaccg ctggggaccc 120
ccaggcctct gaggagcttg gtttggaaag cgctggaatg ctggaccaag ttccctctct 180
ggctccctga gagggggtct tctagcccca gtcttagggc aagaggagcc cgtcccctag 240
gagcctccag gccctggagc cagacatcgg gcnnnnnnnn nnnnnnnnnn nnnnnnnnnn 300
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnaag 360
agacgctaat gtcaccctgg aaggtgtttt gaagggtaat gtgtgtaaag ggccaaacaa 420
ggccccgcac agttaaggac ttaatcctgc ccggcccecgg gagggcttcc ggcatcttgg 480
ggttcccctc aaaggatggc ctgggcagga cttcttaaaa acaaacaggc ggctgggcgc 540
ggtggctcac gc 552

<210> 78
<211> 452
<212> DNA
<213> Homo sapiens

<400> 78
cattttagaa actagcatgt ttctaattaa acctgtttac atcaactaaa atactaacat 60
gctttgtaaa aggcccttca gtattgaaag tgtagtgcat tgtggtaagc ataatataaa 120
cacacaaagc cccatttaga tattgtgagg ctttcagtat ttagaatctc agtagtgatg 180
agtttaaaag gctaaggatg atggcaaagc tgattccaac ttggggctaa attttatttg 240
tcctgcttct atggaattag acctgagagt cacctatggt aggtcacaaa tgccttttca 300
attttgattt gcttgcattt tctatacagg ctgtaacact gccgcataaa acactagggg 360
ctcttgccag aggggactgt acaagcagtc cacagatgtt ctcgaagaaa ctccctggaa 420
ctttactact cggttataca aagagccgtc aa 452

<210> 79
<211> 747
<212> DNA
<213> Homo sapiens

<400> 79
tttttttttt ttttgagaca gtgtctcgcc ctgtcgccca ggctggagtg cagtggtaca 60
atctaggctc actgcaaccc ccgcctccca ggttcaagtg attcttatgc ctcagcctcc 120
cgagcagctg ggattacaga tgcccaccaa gacactcagc caatttttgt atttttagta 180
gagatggggc ttcaccatgt ttgtcaggct ggtcttgaac tcctgacctc aagtgatctg 240
cccaccctgg cctcccaagt gctgggatta caggcatgag ccaccacgcc tggccttgac 300
ggctctttgt ataaccgagt agtaaagttc cagggagttt cttcgagaac atctgtggac 360
tgcttgtaca gtccectctg caagagccc ctagtgtttt atgcggcagt gttacagcct 420
gtatagaaaa tgcaagcaaa tcaaaattga aaaggcattt gtgacctacc ataggtgact 480
ctcaggtcta attccataga agcaggacaa ataaaattta gccccaagtt ggaatcagct 540

36

```
ttgccatcat ccttagcctt ttaaactcat cactactgag attctaaata ctgaaagcct 600
cacaatatct aaatggggct ttgtgtgttt atattatgct taccacaatg cactacactt 660
tcaatactga agggcctttt acaaagcatg ttagtatttt agttgatgta aacaggttta 720
attagaaaca tgctagtttc taaaatg                                    747
```

```
<210> 80
<211> 353
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (102)..(217)
<223> a, c, g or t

<400> 80
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nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnncct ggtaaaatgt acagaagcat 240
gcatttttga aacaagtaaa ggaagaagac ttaggcgctc tccactccaa ggncacctgc 300
accttnccta tgtagctttc cccagcaaca acgaagccna gcattgggtt ctt        353
```

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<210> 81
<211> 627
<212> DNA
<213> Homo sapiens

<400> 81
gaaaagtgac ttgggtgcca ggagacatgg gccctcccta gtcctggctg tctctaactt 60
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cgtggttttc agatctgtcc tagccacaga accctctctt caaacaagcc cttacctgca 180
atctgaacat aaaatgctac ctggtgggac tcacgagtga gttccggaca ggacaggaga 240
cggctgtcac tgggctccag gatgtgggtg gcagtgcctg acttcccgct cctgcctgct 300
gtgggagacg agcttcttgc actggggcct gatttcccag gctggcctct cagatcccgt 360
ggcttcaagt tctcctggtc atgcagtgtc ctggttcagc actgaattgt tccctaatgg 420
tttcctgtgt ggcagattcc ttagctctac agtgaactct aacagggtag gcttgaccgg 480
cttctgtggt ttgcttggag tagttaggat gaaaattcag aacctgcctg ctgactgaaa 540
tgggcgttca tgtcttagaa tgctcaccag attgcttgtt ctcttacaca tagtagaggt 600
caataaaacg gagtttgtgg gatgttt                                    627
```

```
<210> 82
<211> 476
<212> DNA
<213> Homo sapiens
```

<400> 82

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ggcagggcca tgttctctct gacaccttta gagaagagtc cttcctggct tcttagccag 120
cattgcccct tggttgcctg cagtccttgg tgtttcttgg ctgtagcaac atgactccga 180
tccctgtctc ctatccacac atggccttct gccctatat atctttgtgt cttgcacaag 240
gccttcttag aaggatacta gttgttggta tttaagggtg caccctaatc caacccatgg 300
cactcaatca ttaacctaaa ttaacattct gacgaaggag tcctatttcc ataataaagg 360
tcaacactga ggttactggg ttgaataatg gatatatgga catgtgtcct ccaaccccaa 420
atactcaata catatgaaat atgtaactac tcaagaaaat atacacacaa cagatg     476
```


<210> 83
<211> 387
<212> DNA
<213> Homo sapiens

<400> 83

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caaaacaaag cntcaaagtc tacactgtgg cctgtagggc ccggcctggt ctggcctggt 60
ctgtgacttt gggcctcgtc tttctcttct cccctcctgg gtctctagac tccagcaacg 120
ttggcctcct tgctgcctct tggcatgcca agctctctcc tccctgcaga cttcattcct 180
gctgttcctt ctgttctaga tgcttcatca ttcaagcttc agcaaagatg cctttttcctt 240
ggggtggcct ccccagcctg agcaacagca gcctctgctg gtcatccttg ccatgtcact 300
ccactctgtc tttccatagt gtctgttggt actgcaagta tcttattttg tgtatttgtt 360
cattgtcagc gtcttctcag tagcatg                                      387
```


<210> 84
<211> 4270
<212> DNA
<213> Homo sapiens

<400> 84

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atgctactga gaagacgctg acaatgaaca aatacacaaa ataagatact tgcagtacca 60
acagacacta tggaaagaca gagtggagtg acatggcaag gatgaccagc agaggctgct 120
gttgctcagg ctggggaggc caccccaagg aaaaggcatc tttgctgaag cttgaatgat 180
gaagcatcta gaacagaagg aacagcagga atgaagtctg cagggaggag agagcttggc 240
atgccaagag gcagcaagga ggccaacgtt gctggagtct agagacccag gaggggagaa 300
gagaaagacg aggcccaaag tcacagacca ggccagacca ggccgggccc tacaggccac 360
agtgtagact ttgatgcttt gttttggttt ggttttggtt tgtttttttt gagacggggt 420
ttcactctgt cacccaggct ggagtgcagt ggtgcaatct ggttcactg cagcctccgc 480
ctcctgctcg tgcctcagcc tccaagtaga taggactaca gtggcgcgtc accatgcccg 540
actaattttt gtattttaa tagagacggg gtttcgccat gttggccagg ctggtctcga 600
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gattttattt caaaaaatta ccgacagagg ggatgagttt caaaaagcct ttcagctgct 720
ggatactggt cagaacttga ctgtgtcaaa aagtgaactg agaagaatca tcacagactt 780
cctgatgccg ctcacacgag aacagtttca ggacgtgttg ctcaggtgc tgaatatctt 840
cagcagatct ggtggctctc tggtcacatt taggtctaaa caggtccagt gcaggcgagt 900
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38

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tcagtttaaa cctcaagtgt ggggctggtt cagcacgccc ttctcagctc ctccaagccc 960
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cgtcgctctg gtgggtgtga gctcgctgcc aggttgctgc ttcccggtgc tcacgctaga 1080
gatccatatg ggttgctctg gggtttttaaa aaagcgcatc gtgctcatgt cctccatttt 1140
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taacaagact ggactggttc gaccgcagga gctaagaagg gttctggaga ccttctgtat 1260
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tgcagtagat tacaacgtgt ttttgaagaa tctcagcata aataacgact tgaaccttag 1380
atattgtatg ggaaatcaag aggtctcgtt ggagaatcaa caagccaaaa attccaaaaa 1440
ggaacgtttg ctaggttctg catcatctga agatatctgg agaaactact ccttggatga 1500
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cagtgcaggg gacccctgta aggtggcta cgtgtctttt aattatctaa agattgtcct 1620
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agtgattgaa aaattcaaaa agtgtataca gcagcaggac ccggcattca aaaaacgatt 2520
tcttgacttc agcaaggagc ctaatggaaa aattaacgtg catgacttta gaaggtact 2580
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aaatgctggg gatgaaagct accagcccca ccccagggag ctcggtctaa tcccagacac 2760
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tcctctggag gcacaaggaa aagatccctt taaggaggac tccctggagg aggtggcccc 2880
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ccttggcctt cttggcttga gacttagtgt cactttaaat tttcgggaat ttcaaaattt 3180
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gaaggttgcg gattcagaac tagcttgtga gcaggctcat cagtatcttg ttaccaaagc 3300
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cattcttcga cgccgggaca taaagaacgc actgtacggt tttgatattc ccctcacacc 3420
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gaaggagctg cagcagagca cagagaaggc tgtggcagcc agggataagc ttatggaccg 3660
ccatcaagat atcagcaaag cattcaccaa aactgatcaa tccaaaacca actacatatc 3720
catatgcaag atgcaggaag tgctggaaga atgtggatgt tctcttaccg aagggggagct 3780
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39

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gacccatctg ctaaacagtt ggggagtcag ccggcatgat aatgctatca attacctcga 3840
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gagcatgcca atcaattttg caacgctgaa tccacaggag gctgtgagga agatccagga 3960
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tacaggattt gtaaaggcta cagaattcgg acaagttctt aaggatttct gttacaaact 4080
aacggacaat cagtatcatt attttttgag gaaactaaga attcatctaa cccctatat 4140
aaattggaaa tattttctcc agaactttag ctgtttcctt gaggagcgag gcctgagtgt 4200
cctcatgcac gagtcacaag gagcctctgc tgatcctgga attgctggac caaggagaga 4260
acattcctaa                                                       4270


<210> 85
<211> 468
<212> DNA
<213> Homo sapiens

<400> 85
agctaattct agagaaatta agcaaaagta tttttcttaa tatttttcct gaaacatttt 60
atgccatgct attgcttaga taatatataa tgtaatagca aaaagtcttt tccaaaatta 120
aataacttta aattatattt aaaaattctt taaaaccttt gtaacctatg taattcattg 180
tgaattgtta attattttaa tgataggtag ttactttgat ttctctgaag tagcatgatc 240
ttgaggaagc cagagtcagt attcacacat gtcccaacag ggcttcttta gactatttgg 300
aatatattct ttgcctgcaa gacctgttaa ctcttcaagg ttttctgtat cttttcaaat 360
tggaaccact agaaaccacc agcttcttag ttatacctta gatatgctac accattttga 420
tgtagttggg tttgattact acaagattga tcccaactat taatacat        468


<210> 86
<211> 508
<212> DNA
<213> Homo sapiens

<400> 86
attttactca tcagaaggct tcactaggag atcacagagt gggaaataat atgttaatga 60
aatgttatat taagccaagc aaattatact ttaatattta tagtatctca ttgaaaaaat 120
aaaactctat atgagtgtgt gttttgttta aataagcaac tacagaaaac atacatatga 180
acacacaaaa gagacactat gagattataa aagtgaagga atagtttatg agcctctgag 240
ctgcttaagc ttctaaaggc tgatagagta ggtaactaga aatgttgctt attatttcat 300
tctttaaaaa cattttcaaa agttagtttg aagtctgcct ggaaactgtc tggtgaagat 360
gatcaaggca atgaaaagga aactattaaa atctttaaaa tcttccttat tccaaatcca 420
cactgttgta ttgtcatatt ggcttcatta aaacaagaaa ttttattcat cagaagacct 480
cactaagaga cagagagact gaaaaagg                                   508


<210> 87
<211> 868
<212> DNA
<213> Homo sapiens
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<220>
<221> unsure
<222> (727)
<223> a, c, g or t

<400> 87
aacagacaag tccagagatc caaggaaagg ccagaagatt aagagtgtgg aagtttgag 60
gaaaagggaa tggagggagt ccattagaga aaaggataag ataaaataca ggccaggccc 120
aagtcctaaa caacacccag tattttgtca tggagtatag aaagggagca gccagtgaag 180
cagaacgaaa tcaggctctg gaggccttgt gcaagccatg agcaaagagg cggtcagccc 240
tgcaggtgat gcgggcaggt aagaaaagga cagaagggac cggaccgctg gatgcaacaa 300
cttggagctc actggtgagc tcagtgatcc acgtcagtgg agacagagcc tgacgggtta 360
aaagtaaatg gaaggtgagg atgagagaca tcacatatgc agacaattct cttagtgact 420
aattccatat aatcagcaat tactaagaaa ttctaggcct tgtggctgca tggctgtgac 480
tccctgtggt ttggtctgat tacagctcct ctgaaaggtt tcctggccag ctgtgaagcc 540
actcacagcc tcattgagac tgggctctcg cccgatgact cctgcagctc ctcaattgga 600
ctctaatcac agagtaccgc tgctggcctt tttatttag ggagaatata acctccttac 660
tgatggctca cgaagccgca ctgccaggct acccaggtac accaacaagc accacttccg 720
aggcttnttc gctctgccca gcgtactggc aagccacctt ggttttcaca ttacctttaa 780
attcacacca cgaggctgcc tcttaattcc ctgtgtatat tccactgcct tgaaacgtac 840
cacattacgt ttcaattaaa aagaatcc 868

<210> 88
<211> 896
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (755)
<223> a, c, g or t

<400> 88
aatcgcagat gccagttaag aggccgcaaa cagacaagtc cagagatcca aggaaaggcc 60
agaagattaa gagtgtggaa gtttttagga aaagggaatg gagggagtcc attagagaaa 120
aggataagat aaaatacagg ccaggcccaa gtcctaaaca cacccagta ttttgtcatg 180
gagtatagaa agggagcagc cagtgaagca gaacgaaatc aggctctgga ggccttgtgc 240
aagccatgag caaagaggcg tcagccctg caggtgatgc gggcaggtaa gaaaaggaca 300
gaagggaccg gaccgctgga tgcaacaact tggagctcac tggtgagctc agtgatccac 360
gtcagtggag acagagcctg acgggttaaa agtaaatgga aggtgaggat gagagacatc 420
acatatgcag acaattctct tagtgactaa ttccatataa tcagcaatta ctaagaaatt 480
ctaggccttg tggctgcatg ctgtgactc cctgtggttt ggtctgatta cagctcctct 540
gaaaggtttc ctggccagct gtgaagccac tcacagcctc attgagactg gctctcgcc 600
cgatgactcc tgcagctcct caattggact ctaatcacag agtaccgctg ctggcctttt 660
tatttagg agaatataac ctccttactg atggctcacg aagccgcact gccaggctac 720
ccaggtacac caacaagcac cacttccgag gcttnttcgc tctgccagc gtactggcaa 780

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gccaccttgg tttttcacatt acctttaaat tcacaccacg aggctgcctc ttaattccct 840
gtgtatattc cactgccttg aaacgtacca cattacgttt caattaaaaa gaatcc       896


<210> 89
<211> 229
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (113)
<223> a, c, g or t

<220>
<221> unsure
<222> (184)
<223> a, c, g or t

<220>
<221> unsure
<222> (202)
<223> a, c, g or t

<400> 89
caaaagtctc tcttccagct attttataat atattatacc tcctagaaac ataaatgtat 60
gctacaaaga aacatgtatc tatgtgtgta aacttaaaaa naattaatgg tanctttgg 120
gaagtttta ggagttgata tttatggtga agaaatatga agttcaggca ttctttgaat 180
ctancctcaa gttctttta anatatattc aagttcccag cactttggg              229


<210> 90
<211> 234
<212> DNA
<213> Homo sapiens

<400> 90
cttatgaccc aaattttag taggctgtta agaagatgcc atgtcttttt tccactagca 60
ctttcaattt tctaaccaaa ataaaatgtt atgtcttctc caaggctgac cttttacctt 120
ctagtctcag ttttggctca agccattacc agcactccca tcccccaacc ctaaaatgaa 180
acttctcttc tgtttgttat ttctcttcct gacaatggat caacaaacat acat        234


<210> 91
<211> 326
<212> DNA
<213> Homo sapiens
```

<400> 91

ttcaagatca ctgagagcat aaagagatca ctcagttgac tgttatgtgg tgacttgaaa 60
gtcttctttt ctaactttaa tccttctttg atcttatgac ccaaattttt agtaggctgt 120
taagaagatg ccatgtcttt tttccactag cactttcaat tttctaacca aaataaaatg 180
ttatgtcttc tccaaggctg accttttacc ttctagtctc agttttggct caagccatta 240
ccagcactcc catcccccaa ccctaaaatg aaacttctct tctgtttgtt atttctcttc 300
ctgacaatgg atcaacaaac atacat 326

<210> 92
<211> 86
<212> DNA
<213> Homo sapiens

<400> 92

acaggcgtga ccacccgtgc ctggcccacg ctgtccttaa ggagacactt tggtgcatac 60
acagctgctc agcaaaaccc gacttc 86

<210> 93
<211> 286
<212> DNA
<213> Homo sapiens

<400> 93

gagcaaatga taaaacaagc aggattaaac gttaactgtg tgtcagtcta agaggaacct 60
ggctatcctt tgtaattcta ttgcagtctt tgtgtaaatt tcaggttact tccaaattta 120
gaaaaaaatt aagtgaacac atatattgac ccaaagttag acccattctg taacatgaaa 180
atacaaggca aaaatatata taatacaact atgttaaaag accctttttt ctatcttacc 240
taaaacttaa catctccaat gattatccat taataagctc ttttta 286

<210> 94
<211> 455
<212> DNA
<213> Homo sapiens

<400> 94

gataaaagta atgtattgat gtaaatttac tgcagttgat aactgtatca tggttgtgta 60
aagtattaat aatatcctca ttattgagaa atgcatattg aagtatttag aggtaaagaa 120
gagtaatgta tgaaattgaa atgattcaag aaaaatttgt gtatagaaag agcaaatgat 180
aaaacaagca ggattaaacg ttaactgtgt gtcagtctaa gaggaacctg ctatcctttt 240
gtaattctat tgcagtcttt gtgtaaattt caggttactt ccaaatttag aaaaaaatta 300
agtgaacaca tatattgacc caaagttaga cccattctgt aacatgaaaa tacaaggcaa 360
aaatatatat aatacaacta tgttaaaaga ccctttttc tatcttacct aaaacttaac 420
atctccaatg attatccatt aataagctct tttta 455

43

<210> 95
<211> 158
<212> DNA
<213> Homo sapiens

<400> 95
ttttaaataa acttttttgtt tgattacaac atgcatagtg tacaagtcat aagggtgccg 60
cttgatgaaa tttcacagtg accccagctg tgtacccagc atccagatca caagcggga 120
ttacaggcgt gggccactgc gcctggcaaa ttgagcac 158

<210> 96
<211> 262
<212> DNA
<213> Homo sapiens

<400> 96
gttttttctgt gatgtgtacc taggaatgga agtgctgagc tctgtgtata cggcccttcc 60
tcatggttct aactactaga gctttatagt aagtcttggt atgtggtaag acatgccctt 120
cctccctctt ttcaaagtgt ccccaaaagg ctatacctag gtctttattc ttccttaaga 180
atttttcaac tgcattagat gttgccacct tatcttccaa agctgttgtt gcagtttgtc 240
tttctcccag tgatatataa ga 262

<210> 97
<211> 87
<212> DNA
<213> Homo sapiens

<400> 97
atgagaaacg tacaaagaaa attttataat aagcgagttc agcaaggttg caagataaaa 60
gataagcata taaatagcag ttgtatt 87

<210> 98
<211> 230
<212> DNA
<213> Homo sapiens

<400> 98
gttcaggata aaagctttag ggctgattct ccctcatggc acacattcac tgggcatctg 60
ctctttggca ggccctgtta taggtctggg actgcaaagc taaggcctgg tagtgtgact 120
acccggaata atcaggaaag gcatcaccaa ggcagcagta gctgtgctgt gatcaaagaa 180
tgcacagggc ttgtagctac aggagagaga gaacagtggc aattccaggc 230

<210> 99
<211> 144

44

<212> DNA
<213> Homo sapiens

<400> 99
gccttcattt ctagtggagc attcccaggc caaattaggt gaagggtctc atttcctagg 60
atttcttcac aggtggcatc cgtcctcaga tgggctacct aggactaggg atggctgcag 120
gtttcaagga gcgagtagtt gaat 144

<210> 100
<211> 469
<212> DNA
<213> Homo sapiens

<400> 100
gactaccaca caaggttatg catgttgtgc gatgttcagc tgtaggtggg gcgatactca 60
aatcgtagcc taggctgcta gtctttacat gcacagtgtg gtttagatgt gtgcttaatt 120
ctcacagaag ccctacgggg caggcattcc cgtttttacag atgtggaaac aaactatgag 180
ggtaagaatt tggccagggt ttcacagcta ggatatggag ttgctgggat ctgaccgcag 240
tcctgtttcc ttcctaatcc attggctgcc caccaggctg ccccacgggg tgtccctggg 300
cagtcgctta tctatactat ctacctttac atacgttgat tggctggctg aggtgagtac 360
actaggactt gactggaaaa ttttacaaac caagaaagca agggattctg ttcctcctac 420
ctcctagctt tctgtctcct agggaaagag aaanattaca aagaagaaa 469

<210> 101
<211> 200
<212> DNA
<213> Homo sapiens

<400> 101
gggatgaatg gcagacttta actggatgct ttatttaggc ttttcgaaag caaaaaaagt 60
ttatacattg ttacagctgg gtgttgggtt acaggctgtt tgttatattc atgtattagt 120
tcctgttatt ttaacatttt aaatatttca taattgaaaa aggaaaaatt agactgggac 180
cagtttatag aaagctttaa 200

<210> 102
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (145)..(170)
<223> a, c, g or t

<220>

<221> unsure
<222> (435)
<223> a, c, g or t

<220>
<221> unsure
<222> (444)
<223> a, c, g or t

<400> 102
gggagaaaat agtgttgtat gggagtaata tatttctatg tctctctggg atcaagctga 60
gatcaatatg tactgggatc aagtacatat tggaagctga ttctgtaaat taagatatac 120
atggtaagcc ctagagtaac ccctnnnnnn nnnnnnnnnn nnnnnnnnnn acctcaaaaa 180
acatagtgag ataaataatt taaattcttc attaggaaat atttacttaa tgcagaagaa 240
agcagtaagg gaggaataga agaacagaaa aatacatgag acacagtaaa ccaaaagtaa 300
aatgacagct ataaatccaa cttatatcaa acataacatt aaatgtgaat ggattaagga 360
atctgatcag aatgcagaga ttgtcagatg gattaaaata atncaataag gtccaactat 420
acactgtctg taggncacac atgntagacg tgatgtttat a 461

<210> 103
<211> 319
<212> DNA
<213> Homo sapiens

<400> 103
gcttgcctta aggaacatga caaggatctg ttgtaagatc cacttcctaa agtgcttaaa 60
gaaagaaatg gaaatctcaa gctaaggctc cgagtcactg tgagggagac tttccccctc 120
cagtctattc tgtagtaaca gaataaattt caaaataatt attttttccta attataaata 180
gaagtaatat cagctaattg tttaaagttt ggtaaatatt ttttaaatgt gaaaaaattc 240
ctctaatttc actcctaaaa ctcctttaac aatttgggta tctccagcct aggcaacaag 300
agtgaaactc tgccacaca 319

<210> 104
<211> 563
<212> DNA
<213> Homo sapiens

<400> 104
tattaattaa gtactcgcta agtgctaacc accataccaa atgttggaaa tgtagtaatg 60
agtaggacat gtgtatatgg tccataccctg aaaggaagtt attctagtag gagaggtgat 120
ctatcaacac ataattacaa catgtgatat gagctatgaa cacttatgaa caaacagggt 180
gctgtgtaaa agaataaagg aacaaagatc tgtgtatagg agttttctgg aaaatgtttg 240
gattcggcag tcattttcaa aggcagaggg cattgatagc agtatcttaa catggaaaac 300
attaaaacta actagatatt agtattctat ttccaattca aaaataacca gaagatagtg 360
atgttgtttt gaatatagga tgtcaatctt tgtgttaatg tgttttgaaa aagcaagact 420
taattgaaaa tatacatcaa attataattt cagtgtatta aaaaactgcc tgtttaaata 480

46

```
tgtcctttct ttgctgtaaa ttttggttaa aatctattgg agttacgtcc ttgtggtgaa 540
gtacacccta cccccaagag agc                                          563


<210> 105
<211> 1041
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (140)..(229)
<223> a, c, g or t

<400> 105
ggtaagtcca tgatgttgat gttttgttaa catacccggt gtaggactat ggagcctatg 60
tctcagaaaa taaaacttga ataataatag aaaacaattt ttcatataaa aaattatact 120
taagtataaa aatgtatacn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnt gtgtatatgg 240
tccgtacctg aaaggaagtt attctagtag gagaggtgat ctatcaacac ataattacaa 300
catgtgatat gagctgtgaa cacttatgaa caaacagggt gctgtgtaaa agaataaagg 360
aacaaagatc tatgtatagg agttttctgg aaaatgtttg gattcggcag tcattttcaa 420
aggcagaggg cattgatagc agtatcttaa catggaaaac attaaaacta actagatatt 480
agtattctat ttccaattca aaaataacca gaagatagtg atgttgtttt gaatatagga 540
tgtcaatctt tgtgttaata atgtgttttg aaaaagcaag acttaattga aaatatacat 600
caaattataa tttcagtgta ttaaaaaact gcctgtttaa atatgtcctt tctttgctgt 660
aaattttggt taaaatctat tggagttatg tccttgtggt gaagtacacc ctacccccaa 720
gagagcaaat gatgaataaa tcagtagatg ttccatgaat gcaatgttgg ctgagctggc 780
cacagtggag tgtgatcacc tggttatagg agaatagcca gcaggttata tttcataatt 840
atatttttcc ttaaattttt gcattaatat ttaatagcaa taattaaatg aattccagac 900
tgaatagaca attttattca ttgaataaac attgagaatt gcctactgag gcctgggctc 960
taggaattcc accaagaata aaaaaagaca tggtgttttg ccctcaaatt gcttagaatc 1020
tattcaggcc acttagtagc a                                           1041


<210> 106
<211> 451
<212> DNA
<213> Homo sapiens

<400> 106
tggcaaatat gttttttaaaa tggagaggtg tgcaggaagt gagccagcaa ggaaggagaa 60
tataagtcgt cttttttgca ggatgcaaaa ttgggtttat ttgcagactg atgtgttacc 120
ttctaaagga ctagccacaa cgtttgaccc tcaatctaag gtcaacactg ctatccattg 180
ctcacagacc agagtgcatc tcccatgagg caaaagagca ggtgtgagaa gtgggtaagc 240
agtctgtata ttgggggtgt ggtggatggc atagggata actcagtcta atgaaagaca 300
tcaatgtgcc attgggaaag gacagaggtt gccccctctt tcccccagat agtcgcccag 360
cttataaatg catagatctg ggacagagaa taagggtcac ctaggttccc cctaatcaca 420
```

```
ggcgggacta ggactttgg agatgtctca c                                    451


<210> 107
<211> 103
<212> DNA
<213> Homo sapiens

<400> 107
atcttgggcg gtctgaaatc tgagatactg tggaaagaac agaaagatcc tgtatctttc 60
ctataattgt tctactggaa gttgtcattt tacacaggag aca                     103


<210> 108
<211> 979
<212> DNA
<213> Homo sapiens

<400> 108
agcggggggc ggcctgggac tcgggggcgg ggtcagtcat ataaggctgt gcccagcgct 60
tttggaagca gtaagtccag cccgaggcta aggaggtgtt aaccaccgaa ggggggtaga 120
atgttttttcc ccaccagagg aggcagcgac cacgtctcct ctatggaggc attcaagagc 180
cgtccagctg aagcagcatc actgtctgag ctcggaaggc acaatccaca taggtctgca 240
tggtccacag agctgcatac ccacggggcc agcgggaggt gggcagctgc cgggctctct 300
tctgaagcag acaggatctc actctgttgc tgaggctgga tcacagctcc ctgcaacctt 360
gaactctccc tcaagcaatt ctccccactc tgccttccaa agcactagca ttataggcct 420
aagccaccac tcccatccac tgtagtgtaa actgtctcct tcaatgtttc caatagttgc 480
ggagcagatc agataagggt tcttcctgtc tgttgcttca agtttcattc tctctttaaa 540
caatacaagg ttggcttcca tggttccttc ttaaagaatg ttgaaggtgt gtcttcagat 600
tcatttagtg ttcgtggaac cccaggaaa gctgatgtaa aaacctcttt tttctcccat 660
atgtctcaaa aagttgtatt ttctgggtcc aagggatctg caagcctcct aaaggcattt 720
ccattgtcac taccaccagg tgtgaactgt aatctggcac gtatagttcc aagaactgtc 780
ataatagatg ctgaagaaac attgtgaagt taactcgctg ttaccaactg tgaagtcatt 840
agctagagga atcttgggcg gtctgaaatc tgagatactg tggaaagaac agaaagatcc 900
tgtatctttc ctataattgt tctactggaa gttgtcattt tacacaggag acattctgtt 960
ttatttattt tcttttgag                                                979


<210> 109
<211> 668
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (583)
<223> a, c, g or t
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48

<400> 109

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tatcagcctt taaggtttat tgtcccacaa tggctgtgga gttaaaaaaa aaaattcagt 60
gagtttggat ataagattat tatttaatga ataatcataa cataggaaaa catatcaaaa 120
cataggggaaa accaacataa atagtcttca aaagacacta gttcttggta tattcacata 180
accacctttg tgaatgcagc acattaatac atctgtcata tagcacttta aaatggccaa 240
cttttaagt gcttttatac tgtattctct ccacaatgat gtgactttcc aaaatttttcc 300
actgaaaaag atgtaacctt gcaatgtggt ttagtatgga acttactttg cactgtatct 360
ggcggttgaa ttttgctttt attgtactgt ggacttgtga ctaaggcaaa taaaacttaa 420
gctcacttaa tttaaatatc tcaaaataac atttaggaaa aggtgcagtt tttctttgct 480
tcagaatggg ttttttatcac aaaggaatga gtgagacatt tatttgtgct gggacttctg 540
cacagtcatt gaatgctgtg agtgaatgtt aagtgaaaat tcntggtcaa ggggaaaacc 600
aaggtttcct ttccagggat aattcctacc caaattacct acctggaaag gggaggaatg 660
gccgagcc                                                      668
```

<210> 110
<211> 1112
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (17)
<223> a, c, g or t

<220>
<221> unsure
<222> (27)
<223> a, c, g or t

<220>
<221> unsure
<222> (59)
<223> a, c, g or t

<220>
<221> unsure
<222> (1027)
<223> a, c, g or t

<400> 110

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aaaaatgcca ggccatngta ggggatncca gtcctatgcc ctttatgcct tcccagtcnc 60
aattaagacc ttgattgagc tgcagtacct ttaaaaagga ttagaagagc tattgaatga 120
cttaatttat tagaagtttt taagtgacag catttctaat tattcaagtg catttatttt 180
tcatgaaaaa aggtagaatg atttgttctg acataaagta aatagtgttg atgcattaga 240
aattgtgtgt cttgattatg atttctgtac tttttgcatt agaagtataa tggacttgta 300
ttttttaaata gttgaaacta gcactgtgat catattaaat aatgcatttc tcagtttgga 360
cttcagatag ggattcattt gttgatattt tctttcttct ctcccctgct aacataaaca 420
```

49

```
cttttctgaa gcatatagtt atgatatcag cctttaaggt ttattgtccc acaatggctg   480
tggagttaaa aaaaaaaatt cagtgagttt ggatataaga ttattattta atgaataatc   540
ataacatagg aaaacatatc aaaacatagg gaaaaccaac ataaatagtc ttcaaaagac   600
actagttctt ggtatattca cataaccacc tttgtgaatg cagcacatta atacatctgt   660
catatagcac tttaaaatgg ccaacttttt aagtgctttt atactgtatt ctctccacaa   720
tgatgtgact ttccaaaatt ttccactgaa aaagatgtaa ccttgcaatg tggtttagta   780
tggaacttac tttgcactgt atctggcggt tgaattttgc ttttattgta ctgtggactt   840
gtgactaagg caaataaaac ttaagctcac ttaatttaaa tatctcaaaa taacatttag   900
gaaaaggtgc agttttctt tgcttcagaa tgggtttta tcacaaagga atgagtgaga   960
catttatttg tgctgggact tctgcacagt cattgaatgc tgtgagtgaa tgttaagtga  1020
aaattcntgg tcaaggggaa aaccaaggtt tcctttccag ggataattcc tacccaaatt  1080
acctacctgg aaaggggagg aatggccgag cc                                1112
```

<210> 111
<211> 1041
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (944)
<223> a, c, g or t

<220>
<221> unsure
<222> (946)
<223> a, c, g or t

<220>
<221> unsure
<222> (976)
<223> a, c, g or t

<400> 111
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gtcatcgtgc agttgtgatt taatttacac tcaatcacag ttcttgaata aattcttgaa   60
taaattgcaa aaccttgaga attacattat ttttatcaag tgctatcata tgtactaggc  120
tttttgtgca atttgacttc agatgttaat aaaacaaatc agaaaaaact aaggtgtata  180
tttccaactg tggcttgctt catcatttgt gagactatgt catacatttc tacttttaga  240
cataacagaa gcagagagat tatatctcaa gctaatatga ggttttaaa atcgtattat  300
atattcagcc tcagccagca tatcattttg gtggaggggt gggtacagat gattcaatat  360
tgtagtaatg tttgcttctg aatttttttt cttagttatt tgtctggtat gggatcatgt  420
agctttttc tctttaactc gggtaattaa ggttcacaca gtaaagtcta tgcggtctaa  480
agctttaagg cggaggttgt tatctgttaa tgtgatggct ggtgccatca ggctctagac  540
gtttcttgtg tcatgtcctg ggtttccctc ctggagaagt ccagtgaaaa agcatagctt  600
ttggagttgg tcagacttgg gttacagcgc cacactgcca ctcactagct ggggggcttt  660
ggccaactac caaactctga tctccgtttc ctcacctata gagtggagat gataaaacta  720
tattttattg attctaagat gcacagtttt tcaattttaa tctcttggaa atcagaatgt  780
```

50

```
atcttaccgt tggtgggtcc catataattg acagctgttt ttctttctna gaggtatgtg 840
caataatgat acatcttata atcagtggtg tcttagagtt gatgaattat ggtatttgcc 900
taaagaattt ttataaggat taaaatgtat tattcaagtg cttntntttc actatggcat 960
ataaagaggc cagggnctgg aaaatgctca ggtgcatttc agttttgagc ttataaaact 1020
gggtagataa catgactagt g                                          1041
```

<210> 112
<211> 1380
<212> DNA
<213> Homo sapiens

<400> 112
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tcgtgcgcgg taagaagctg cgcggtagcg cggtgaggtg tgtttccatt gtagaaaacc 60
tggtcatgga attgcagatt gccccgccgc ccttgaaaat caagacatgg gcactgggat 120
atgttacagg tgtgggtcca cagagcacga ataaccaag tgtaaggcta aagtagaccc 180
ggctcttggc gaatttcctt ttgcaaaatg ttttgtttgt ggagaaatgg ggcacctgtc 240
tagatcttgt cctgataatc ccaaaggact ctatgctgat ggtaagtact gttaccctca 300
tatagcagaa atggtgagtc atcgtgcagt tgtgatttaa tttacactca atcacagttc 360
ttgaataaat tcttgaataa attgcaaaac cttgagaatt acattatttt tatcaagtgc 420
tatcatatgt actaggcttt ttgtgcaatt tgacttcaga tgttaataaa acaaatcaga 480
aaaaactaag gtgtatattt ccaactgtgc ttgcttcatc atttgtgaga ctatgtcata 540
catttctact tttagacata acagaagcag agagattata tctcaagcta atatgaggtt 600
tttaaaatcg tattatatat tcagcctcag ccagcatatc attttggtgg aggggtgggt 660
acagatgatt caatattgta gtaatgtttg cttctgaatt tttttttctta gttatttgtc 720
tggtatggga tcatgtagct tttttctctt taactcgggt aattaaggtt cacacagtaa 780
agtctatgcg gtctaaagct ttaaggcgga ggttgttatc tgttaatgtg atggctggtg 840
ccatcaggct ctagacgttt cttgtgtcat gtcctgggtt tccctcctgg agaagtccag 900
tgaaaaagca tagcttttgg agttggtcag acttgggtta cagcgccagc actgccactc 960
actagctggg gggctttggc caactaccaa actctgatct ccgtttcctc acctatagag 1020
tggagatgat aaaactatat tttattgatt ctaagatgca cagttttttca attttaatct 1080
cttggaaatc agaatgtatc ttaccgttgg tgggtcccat ataattgaca gctgttttttc 1140
tttctgagag gtatgtgcaa taatgataca tcttataatc agtggtgtct tagagttgat 1200
gaattatggt atttgcctaa agaattttta taaggattaa aatgtattat tcaagtgctt 1260
ctctttcact atggcatata aagaggccag ggcctggaaa atgctcaggt gcatttcagt 1320
tttgagctta taaaactggg tagataacat gactagtgag caaaaatggc tttcactggt 1380
```

<210> 113
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (163)
<223> a, c, g or t

51

<220>
<221> unsure
<222> (191)
<223> a, c, g or t

<220>
<221> unsure
<222> (198)
<223> a, c, g or t

<220>
<221> unsure
<222> (206)
<223> a, c, g or t

<400> 113
gcactgcagc cttaaacagg cacaattttg tctatacttc cagaacctag attattctga 60
aatctttaac aacataaggt ttagatacca tttgcattga gtacccacta ggtgccgact 120
cttttaaagt gcatttttag tttcattatc tcaactttgt aangttggca tcattattcc 180
cattttacag nagataaaat tgaagnaaag tcaagtttag gggattttca aggttgtaca 240
gtacaactgg gtgacaaaat ttttgctctt tcaatgataa tgaggcctct gacatcttcc 300
tttctcataa gactacattt agtataactt atatatttta tcagtcaaca actatctttt 360
gagaacttgt acacccagga ctgtgtaatg ggc   393

<210> 114
<211> 440
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (95)..(291)
<223> a, c, g or t

<400> 114
gtcctttat tattcttttt ttcttatatt tttattgtgg cacaaacttt atactaaaag 60
gaaaaggaga ttcattgtga atacatgata agtgnnnnnn nnnnnnnnnn nnnnnnnnnn 120
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 180
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 240
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn natgatatca 300
aactaggttc gtcctgccca cgtgcagcaa gccaatcact atgatgatgg gttttgccaa 360
aagagacaag attttattca tagggctgct gaatgaggag acaggagagc aaatcccaaa 420
tctggcaccc tgaaaatagg   440

<210> 115
<211> 791

<212> DNA
<213> Homo sapiens

<400> 115
gaaatccaaa caactgccat tgatttattc atttatttca caaatatttta ctgaacgcat 60
ccagcatgct ctgtggggtg ctgtgctggg gctgggggtg ccaggatgag aaacagccgt 120
gtggctgtgc tcttggcttc accagccaga cgagtgttgc ctttgcaagg agaaaggact 180
cacaaggctt acacatttgc tgccctcagt tttgcccttt ctcaaataaa tctcacacat 240
ccaatctcct tgttgcccat tagggagtat ataatgaaat taagtaaatg aggaattgcc 300
taaaactaag ggagtttcac ctccatgtag gtagaagaat gtgaaatggt ctgtgtccag 360
aagccagatc agaaatggtc catagcaagg tggggagggc agcgggtacc cacctggcag 420
tgtagggggt tggattcagc ttcatcttcc tgacccctttg tcaagtggac aagctccagc 480
caaacaaagg aagtgtgttg gagtggccac cagcacagaa gtgtaccttt ctgggtaatg 540
tgtcacccag tcccctggcc atgtgagagg acaggcacag ttgccacaca gtactaatag 600
ttggtctctt ctttaagggt caaaaaaaag gaggtggagc acttttaaga aagtgttaag 660
gttccatgaa gatgttatgg tggcgtgctg gcaggtgcat atcaaccctg ccctgaggcc 720
ctcagcagcc ttcggtctcc ccaaagcaat atggctcctt ataaagaagt cttttagggc 780
tgggctcggt a 791

<210> 116
<211> 4351
<212> DNA
<213> Homo sapiens

<400> 116
cggcccagca aagttcttga caaagtaaag aagccaatta caagaaaatc tcagtttgca 60
aagggacaga attcgtctca cttattcact gcttattgtg tgcctctcgt gtttttttctt 120
cttgtgggtc ggtgtatttg atgctggtta gtagagacaa agaagaagga caaacaggat 180
aaaggtggat ctttggtgtg gaccctctgc actgcgaaag aagccacatc accgccaatg 240
tggaaaatat gcaaagtgcc gttaggaaga aggaaggata tgtgtgcagc atatgaagtg 300
ccttgaatac gattaacttc ccttcatgag tagtaaatag tagataactc tgatcaaaaa 360
agggattcat gtgatttatc aagctgagca actgcgcgtc tgcagagaag ctggaggtca 420
atcttgaaat ctagggcaag aggagcacta ggcaattgcc aggactaaga agttaatcat 480
acccttggac tgcttccatc tgtctcagag tgacagcgct gctctcagcg agcaggcatg 540
ctttatagca gcagatcagg aattaatatt ttctgtgaaa cctcaagcat catttgcagt 600
aacttgggtt ttataaaaat ggaacataat tttatatgaa taaatcacgt tcagctagaa 660
atacgagagg ctgcaaaaaa ttatgcttga cttaaaaaaa aagagagagg aacgagcaaa 720
aaagccaaca tgaaaacagt tgttgaagcg atggcacttg gagggcacag atagccatgt 780
ggttaaattg tgcatataat catctgaaat gtcagcctgc gactccagca acggctacat 840
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tgcctttgca aggagaaagg actcacaagg cttacacatt tgctgccctc agttttgccc 1140
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aattaagtaa atgaggaatt gcctaaaact aagggagttt cacctccatg taggtagaag 1260
aatgtgaaat ggtctgtgtc cagaagccag atcagaaatg gtccatagca aggtggggag 1320

53

```
ggcagcgggt acccacctgg cagtgtaggg ggttggattc agcttcatct tcctgacccc 1380
ttgtcaagtg gacaagctcc agccaaacaa aggaagtgtg ttggagtggc caccagcaca 1440
gaagtgtacc tttctgggta atgtgtcacc cagtcccctg gccatgtgag aggacaggca 1500
cagttgccac acagtactaa tagttggtct cttctttaag ggtcaaaaaa aaggaggtgg 1560
agcactttta agaaagtgtt aaggttccat gaagatgtta tggtggcgtg ctggcaggtg 1620
catatcaacc ctgccctgag gccctcagca gccttcggtc tccccaaagc aatatggctc 1680
cttataaaga agtctttag ggctgggctc ggtagctcat gcctgtaatc ccagcacttt 1740
gggaggccaa gggaagaaat ttgatctcaa attcagtcaa ccagtctatt caactgagga 1800
cccctcagca ggggttccct gtgctaaggc cctggtggca gtagccagtg gagagaaggc 1860
tctagccttg atacctctcc cttggttaaa acgtaattcg aagaagccta agctctctgc 1920
gcagcccgcc gcgcagcccg ccgccccagc ctgggcgaag cccctgacgg accaggagaa 1980
gcggcggcag atcagcatcc gcggcatcgt gggcgtggag aacgtggcag agctgaagaa 2040
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cgactactac ttcgcgctgg cgcacacggt gcgcgaccac ctggtggggc gctggatccg 2160
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gaatgacact caccctgcac tcgcgatccc tgagctgatg aggatttttg tggatattga 2880
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tcgacatttg aaatcattt atgagataaa tcagaagcat ttagatagaa ttgtggcctt 3060
gtttcctaaa gatgtggacc gtctgagaag gatgtctctg atagaagagg aaggaagcaa 3120
aaggatcaac atggcccatc tctgcattgt cggttcccat gctgtgaatg gcgtggctaa 3180
aatccactca gacatcgtga agactaaagt attcaaggac ttcagtgagc tagaacctga 3240
caagtttcag aataaaacca atgggatcac tccaaggcgc tggctcctac tctgcaaccc 3300
aggacttgca gagctcatag cagagaaaat tggagaagac tatgtgaaag acctgagcca 3360
gctgacgaag ctccacagct tcctgggtga tgatgtcttc ctccgggaac tcgccaaggt 3420
gaagcaggag aataagctga agttttctca gttcctggag acggagtaca aagtgaagat 3480
caacccatcc tccatgtttg atgtccaggt gaagaggata catgagtaca gcgacagct 3540
cttgaactgt ctgcatgtga tcacgatgta caaccgcatt aagaaagacc ctaagaagtt 3600
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aagcaagttg aaagtcatct tcttggagaa ctacagagta tctcttgctg aaaaagtcat 3780
tccagccaca gatctgtcag agcagatttc cactgcaggc accgaagcct cggggacagg 3840
caatatgaag ttcatgctaa atggggccct aactatcggg accatggatg gggccaatgt 3900
ggaaatggca gaagaagctg gggaagagaa cctgttcatc tttggcatga ggatagatga 3960
tgtggctgct ttggacaaga aagggtacga ggcaaaagaa tactatgagg cacttccaga 4020
gctgaagctg gtcattgatc aaattgacaa tggctttttt tctcccaagc agcctgacct 4080
cttcaaagat atcatcaaca tgctatttta tcatgacagg tttaaagtct ttgcagacta 4140
cgaagcctat gtcaagtgtc aagataaagt gagtcagctg tacatgaatc caaaggcctg 4200
```
                                    54

```
gaacacaatg gtactcaaaa acatagctgc ctcggggaaa ttctccagtg accgaacaat 4260
taaagaatat gcccaaaaca tctggaacgt ggaaccttca gatctaaaga tttctctatc 4320
caatgaatct aacaaagtca atggaaattg a                                4351
```


```
<210> 117
<211> 454
<212> DNA
<213> Homo sapiens

<400> 117
tgtcaataca atcgggggaa aggaatactt tgaactactt tgttggaagg agtttgaaat 60
cgttgaggac tcagcagcat gaagtagaga aattcacaat tggtagaaag gactattgtc 120
cttcaacctt cattaaggtt aactattcaa ccttcattaa aaacagaaag tgacaatttc 180
acagcaaatt ctagaacttt agatcaaaag tcaactcaat atggggatt tatataagaa 240
agagttaaaa aaaagacgaa atgtaatatc tatgttattg caagtgaaag gaaaacagga 300
agataaatat cacaagaaga caaaaatgta tctaacattt tgggacaaga ttgtgggatc 360
cacagaaaat tggaacttgg aacttcctgt tccacagaga taaganatac cttgctttta 420
tctcacttct caaaaaagta agtgatgggg ttag                             454
```


```
<210> 118
<211> 504
<212> DNA
<213> Homo sapiens

<400> 118
tgtcaataca atcgggggaa aggaatactt tgaactactt tgttggaagg agtttgaaat 60
cgttgaggac tcagcagcat gaagtagaga aattcacaat tggtagaaag gactattgtc 120
cttcaacctt cattaaggtt aactattcaa ccttcattaa aaacagaaag tgacaatttc 180
acagcaaatt ctagaacttt agatcaaaag tcaactcaat atggggatt tatataagaa 240
agagttaaaa aaaagacgaa atgtaatatc tatgttattg caagtgaaag gaaaacagga 300
agataaatat cacaagaaga caaaaatgta tctaacattt tgggacaaga ttgtgggatc 360
cacagaaaat tggaacttgg aacttcctgt tccacagaga taagaaatac acttgctttt 420
atctcacttc tcaaaaaaag taagatgaat ggggttttag gccccagaga cggacattgt 480
agctgcaatc aattgtacta tctg                                        504
```


```
<210> 119
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (385)
<223> a, c, g or t
```

<400> 119

```
aaaaaacagt ttggctatgt ttcagaagtc aaaaataagt ctgtaacctt tgacccagta  60
atcctatttc tggaagtcta aattgagaaa atgtggggta ctgaaaatct ctatttgcat 120
gaatatattt ataataacat tcgttatatt ctttatattc ataaaacatt ggaaacaatt 180
tttatggcca aaaatggatg aatagctcag taaatgacgg ttctctgcaa gcgatgtaat 240
agtatgcagt cagtaagcaa atacagaaga tactaagttg caacattaga atatataata 300
ttgtgtatta ggaagtcagg ttatcatatt taaattttga acaaaagtaa aggttagatc 360
agttcaattg agaaataggg gtcanttcag aaaatgttat tccatga              407
```

<210> 120
<211> 104
<212> DNA
<213> Homo sapiens

<400> 120

```
taaagaagtg ggtatcaggg actcctgtga gatagcatga gaaggtggta catttgggag  60
gtctcaaggg gttactgaat tattggaatt agaatcaaag ggac                 104
```

<210> 121
<211> 149
<212> DNA
<213> Homo sapiens

<400> 121

```
tacagcaata gataattaat acttaattat ctaattaata catattaata ttttggcaac  60
atacactatg ttcctaaggt acctcggaaa atcctcagaa ccatgtgttg caaatggcaa 120
tgctgtggta caatggggtc tcctaggca                                  149
```

<210> 122
<211> 419
<212> DNA
<213> Homo sapiens

<400> 122

```
ggaaatgtgt ttagttgtca tataaaagga aaatgcagtt taaaataatt tcagtaattg  60
cattcttgag ttttctgtcc tccctggtac catgaaactg gagatctttg gagacctatc 120
acagaacatg tactggaatt gtttgtgtgt ggagtaaagg cagctgtttg tagccatcta 180
gttgggaact gtctttcctt ggatagttag ctactctgtt ggtgtgtggt gtaacactta 240
cctgttgctg gcacgtagtc agtgatttct gtcatgtata agtaggcctt gccattgtca 300
gcaggtaatg atcttggaaa gaccaacttc tgttaatgta atccacaatc tagtgagggg 360
attatagcta tcaaacatat ttctcagtcc actttttaag aagtagtcat ttaggctgg  419
```

<210> 123
<211> 691
```

<212> DNA
<213> Homo sapiens

<400> 123

```
aaagagacag ggtcttgctc tgtcacccag gctggagtac aatgacgtaa taatagctca 60
ccgcaacttc gaactcccgg gctcaagcaa tccttctgcc tcagcctccc aagagctggg 120
actacagaca tgtgctacca catccagctt ttttattttt tgtagaggta gggtctccct 180
atgttgccca ggtgggtctc acactccacc tcaagcaatc ctacagcttc agcctcccaa 240
agagctagaa ttacaggcct gagccactgc acccagccta aatgactact tcttaaaaag 300
tggactgaga aatatgtttg atagctataa tcccctcact agattgtgga ttacattaac 360
agaagttggt ctttccaaga tcattacctg ctgacaatgg caaggcctac ttatacatga 420
cagaaatcac tgactacgtg ccagcaacag gtaagtgtta caccacacac caacagagta 480
gctaactatc caaggaaaga cagttcccaa ctagatggct acaaacagct gcctttactc 540
cacacacaaa caattccagt acatgttctg tgataggtct ccaaagatct ccagtttcat 600
ggtaccaggg aggacagaaa actcaagaat gcaattactg aaattatttt aaactgcatt 660
ttccttttat atgacaacta aacacatttc c                              691
```

<210> 124
<211> 476
<212> DNA
<213> Homo sapiens

<400> 124

```
tagcacgtcg taaacgatga atagatatta gctttaaaaa tgatacttgt tattctgtgt 60
gctagatatc tagggaagtg aaggaaggac ggcaagggag gcagagatga ataaggcagt 120
gactaggccc catgggaggg agatcgcggt accacagctg aatggattgt ctcccctaca 180
ttgccattca gctaagagac attcagcaat ttattgaata agcacttctt gagcccctag 240
tgcatgcatc agacactgcg ttagggctgg gtgcacagca gtgaataaga cagacgtagt 300
tcttgctctc gagtgctcat ggtccaatga gggagacaga gggtgactgg gaacaacagt 360
ccagtgtgat aatgctagca tagcagcaga acagggctg cacaaacaca aagaaggaac 420
atctaactcc caaatgaaaa gagggggcatt gacaaagtcc tcctagggaa aaagaa     476
```

<210> 125
<211> 491
<212> DNA
<213> Homo sapiens

<400> 125

```
cccttagaat aatgtctagc acgtcgtaaa cgatgaatag atattagctt taaaaatgat 60
acttgttatt ctgtgtgcta gatatctagg gaagtgaagg aaggacggca agggaggcag 120
agatgaataa ggcagtgact aggccccatg ggagggagat cgcggtacca cagctgaatg 180
gattgtctcc cctacattgc cattcagcta agagacattc agcaatttat tgaataagca 240
cttcttgagc ccctagtgca tgcatcagac actgcgttag gctgggtgc acagcagtga 300
ataagacaga cgtagttctt gctctcgagt gctcatggtc caatgaggga gacagagggt 360
gactgggaac aacagtccag tgtgataatg ctagcatagc agcaacag gggctgcaca 420
aacacaaaga aggaacatct aactcccaaa tgaaaagagg ggcattgaca aagtcctcct 480
```

57

agggaaaaag a

<210> 126
<211> 752
<212> DNA
<213> Homo sapiens

<400> 126
ctcagctgag aagcagacac attgtgaaat ggactccccc aaaagagttt catctgactt 60
atcccttctc cgcaataaaa tcttggattc tgggtgtgtt tgtttagat gctgtggtac 120
cggctggttt tagcaacaag gacagtgttg gtagggtgag aaacactatc ccaagtcata 180
tgtctgtgtg actacaggac atttcttttg aatgccacaa ggatgattta tatgattact 240
ggtgacaagc ctctgtctcc tgaagacagg ccaagataac gttagattga atttcaagag 300
atgaaagtga ggtttttaag taatagcaaa gccttgtgtt tctgtagtac tttgtgcttt 360
ttgaagtgct ttcacagtca ttatcctgtt tgatcctact aagaaccctg aaagtacata 420
ggttggtggt ttttatcctg agactacaaa tgataccaag gataacgatg agtaggaatc 480
agagctagaa ttaacccta ttttcttact attgacccag catgctttct atgttgaaaa 540
gtgcaccaca tcgagaagag attggtcacc gcagcacagg cacgcagaa ttccattagt 600
atcacttacc tgggaagtcc aggtgccttc aatagttgag gggagtaaat gatatgacta 660
cctaccttca aaacttgtag tttaaagtgg taacttgaat actcacattt acctctgttt 720
ccttcctcta aaagaatggt tttttaaagg gt 752

<210> 127
<211> 158
<212> DNA
<213> Homo sapiens

<400> 127
aaaaaaaaaa aaaaagacag ttgggttgtc atatctcttc tgcctttaat ttgttgaggt 60
acctcatgtg tagcctttgg aatactcttc tgtatactgg tgagagaatt agagtgaaaa 120
aagcagataa catcttagtg ttattaatga aagtagta 158

<210> 128
<211> 642
<212> DNA
<213> Homo sapiens

<400> 128
tttatttgtt tttccagctt tactgcaggt atgattgaca aataatgtct gtttgtaaaa 60
tttcagtcga gtcatagata ccaggtaagg cagagagtgg gagggagact gaggccttgg 120
tctggtgttg ggagcactgc agctcgagtc ttggagtcag gaggggggttg ttgcacttcc 180
ctgttctgct cctttttcag ctttctggtt ccctgtagct tctggaactg attattttttg 240
tttctttaat gctgccctgt cttgtaaaag gagagccatt agcatcattt gttttcagga 300
gagaagcaga tttgaaggct caggaacttc ctgggaaagg tgacctcttt tgagccaaga 360
gctttacccc ctagtttttt gtttttttttt tctcctgtct acctggagct gagaggttat 420

58

```
ccctttcaat ccctctcaag gtccagaatc accagctagg gttgggtctg cccctggagc 480
acagactcct cccttgggga ccccagagcc cttatcagta tatcagtaag agggcaagag 540
aacagagatt gtcagagcag aggaaacgtg tattctgtgc cccagcccca ctccatgaat 600
attcccctgt ctcaaagcac atacttaggc taagaacagg at            642
```

<210> 129
<211> 220
<212> DNA
<213> Homo sapiens

<400> 129
```
ctttttcttgg ggagaatttt ttttttttatt tttagcttcc gattcttata gaaatgtaat 60
actaggcgat tcataattat atagacaagt ttttctgaaa tgttcatttg ttcatttatc 120
atttttaacc cagtctgctt ctaacaggtc ataagttaca ttccaagata tggatatgat 180
aaaactattg aatgaagtat taaagaatc aagttcatgg             220
```

<210> 130
<211> 507
<212> DNA
<213> Homo sapiens

<400> 130
```
tcattttgta tgaaagggga attttaggaa ttagctggag atagacattt gggaatagct 60
aggataaaga tagtaattgc tgattcacca aaacaaaaag aagtgttaga tttgaaaatt 120
ttgtaggaaa ccaccaggtt ctcacctctt gtggtgtgtg tgtatgtgct gtattttttt 180
ttaaactact gaaaactcaa gatctttgtt gttccacaga ttcagttctg tgtcttgtct 240
aattatgccc caggtatatg ataatgtaca gtcacgtttc ttagagtaac tcagaacatt 300
tatgacacag ggttatcttt acttctctag tctcagagtt tcacttagca ggtcatctga 360
gtgaaatcta agccagattc ctgtggatct taatgaaaag gtagtagaaa gtagtggcat 420
agcttgaaat ttaactattg tcagatattg gggcaaaaac catctgtata cctcatgggc 480
ctccagtaaa cacttgtaca ttatgag                        507
```

<210> 131
<211> 760
<212> DNA
<213> Homo sapiens

<400> 131
```
tcattttgta tgaaagggga attttaggaa ttagctggag atagacattt gggaatagct 60
aggataaaga tagtaattgc tgattcacca aaacaaaaag aagtgttaga tttgaaaatt 120
ttgtaggaaa ccaccaggtt ctcacctctt gtggtgtgtg tgtatgtgct gtattttttt 180
ttaaactact gaaaactcaa gatctttgtt gttccacaga ttcagttctg tgtcttgtct 240
aattatgccc caggtatatg ataatgtaca gtcacgtttc ttagagtaac tcagaacatt 300
tatgacacag ggttatcttt acttctctag tctcagagtt tcacttagca ggtcatctga 360
gtgaaatcta agccagattc ctgtggatct taatgaaaag gtagtagaaa gtagtggcat 420
```

59

```
agcttgaaat ttaactattg tcagatattg gggcaaaaac catctgtata cctcatggac 480
ctccagtaaa cacttgtaca ttatgagttt agattgttta aagtagattt cagtatttcc 540
agagtgaatt tagtgttact tgtgaggagg agggtgagaa tatgtatcta gttgagtgga 600
agtacttgtg tgtctacggg tcgtaacggc catgcaacac cacccacgga atcgagaaag 660
agtataaatc tgtcaatcct gtacgtgtcc ggaccgagtg aggtttcccg tgttgagtaa 720
aattaagccg cattctccac tcctggtgtt gcctaacgtc                       760


<210> 132
<211> 214
<212> DNA
<213> Homo sapiens

<400> 132
caagatttgg ggcaaggaga ccagttagga ggactaatcc agaagatgga tattgatgat 60
ttcctactag agatttagaa agaagactcg agtacctagc ttttcatgtc tctgtatttg 120
ttttctcctt ttcactgccc ttttttcttc cctcatttac ccctgtgttc tgtactgtca 180
cttgcttcca gttgtcaata tgttgatttc tgtt                            214


<210> 133
<211> 479
<212> DNA
<213> Homo sapiens

<400> 133
ccttaggata aaaattagtc ttcccaacag gagatacaaa gaccaccaga actggttcag 60
ttcctggctc tccattcaca tcattcattt tctctacctc agacttgaca ctccagtata 120
acttttgtt gatagtagtt cagtgggata gaccatcaat tgattgcata cctccatgct 180
ttgctaatgt tcttctattt atccaaaacc cttcccatgt ttttgcttaa acatcattca 240
tattccaaga ctaaagtcaa tgaaaatcta tatcaggatg attgtcctca atcttctggt 300
tggactacat gtctctcatc aattatactt tgtatcatca gtctgattca ttcaaatagt 360
ctgtgtatta tatgtgcctc aggctaatga ctattaatac ctgtatatta gaaaagaaag 420
cctggtgctt agtagaattt tgttaaatat ttgctcagct gaaccaatgc attaatact 479


<210> 134
<211> 270
<212> DNA
<213> Homo sapiens

<400> 134
tagggatttc gtcacttgga agtaagaagg ttcagtcatc tttggccagc tttgtgttgt 60
gttgaaaatt agcccccaaa gagaattcct gcagaaggtc agggtctttg gggtatttct 120
acacttgagc ctctttcttt tttaagatga catacttgtt atagttgtca aatatggaca 180
ataacaggaa gccaaactca aataataata atagggtgtt acaaagccgt ggcacatggt 240
ccccactgta gtccagctgt ctggagctga                                 270
```

60

<210> 135
<211> 404
<212> DNA
<213> Homo sapiens

<400> 135
acgcgtccgt gaaaaggaag aatacctatt acttaggtat tgggaaattg aaaatgaaga 60
atggaagaaa gagggaggga agagactgtt gtgtttctat ggagaacaac attggggccc 120
ttgactttag atttcagtgg ggacctacaa aaaggaaaaa tggaaaggga attctgaagt 180
cttaaggtgg gctatctgaa agttggatcc ctgggtgaaa aagattttat aatattagat 240
gagttgagag aaccaatgtg aattaaagct gactggctta aaaaaaataa acccatcaaa 300
attagtaagg gaataatgtt attcattgcc tttttttcgt tgagttatga aagctcttcg 360
aagatgaagg ttttatgaaa ctcaagatct ctccagaggc cggg   404

<210> 136
<211> 553
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (446)
<223> a, c, g or t

<400> 136
acgcgtccgt gaaaaggaag aatacctatt acttaggtat tgggaaattg aaaatgaaga 60
atggaagaaa gagggaggga agagactgtt gtgtttctat ggagaacaac attggggccc 120
ttgactttag atttcagtgg ggacctacaa aaaggaaaaa tggaaaggga attctgaagt 180
cttaaggtgg gctatctgaa agttggatcc ctgggtgaaa aagattttat aatattagat 240
gagttgagag aaccaatgtg aattaaagct gactggctta aaaaaaataa acccatcaaa 300
attagtaagg gaataatgtt attcattgcc tttttttcgt tgagttatga aagctcttcg 360
aagatgaagg ttttatgaaa ctcaagatct ctccagaggc cgggcacagt ggctcgcgcc 420
tgtaattcca gcactttggg aggctnaggt gagcagattg cgagtccaga agtgagcaga 480
ttgcttgagt ccaggagttc gagaccagcc tgggcaacat ggcaaaaccc ctgtctctac 540
taaaaaaaaa aaa   553

<210> 137
<211> 41
<212> PRT
<213> Homo sapiens

<400> 137
Met Lys Val Arg Ser Ile His Pro Ser Ser Ala Thr Cys Ala Ser Ala
  1   5   10   15

Leu His Leu Pro Gln Leu Thr Thr Glu Lys Arg Thr Gln Leu His Lys
             20   25   30

Arg Asp Cys Lys Ile Arg Lys Tyr Ile
             35   40

<210> 138
<211> 47
<212> PRT
<213> Homo sapiens

<400> 138
Met Val Thr Leu Gln Met Pro Ser Val Ala Ala Gln Thr Ser Leu Thr
 1   5   10   15

Asn Ser Ala Phe Gln Ala Glu Ser Lys Val Ala Ile Val Ser Gln Pro
             20   25   30

Val Ala Arg Ser Ser Val Ser Ala Asp Ser Arg Ile Cys Thr Glu
             35   40   45

<210> 139
<211> 55
<212> PRT
<213> Homo sapiens

<400> 139
Ile Gln Asp Lys Asp Ser Val Asn Met Val Thr Leu Gln Met Pro Ser
 1   5   10   15

Val Ala Ala Gln Thr Ser Leu Thr Asn Ser Ala Phe Gln Ala Glu Ser
             20   25   30

Lys Val Ala Ile Val Ser Gln Pro Val Ala Arg Ser Ser Val Ser Ala
             35   40   45

Asp Ser Arg Ile Cys Thr Glu
             50   55

<210> 140
<211> 47
<212> PRT
<213> Homo sapiens

<400> 140

Met Phe Leu Tyr Ala Phe Met Tyr Ile Phe His Leu Tyr Asn Glu Cys
 1   5   10   15

Met Tyr Leu Leu Ser Leu Tyr Lys Leu Leu Leu Phe Val Ile Phe Phe
                20   25   30

Phe Phe Pro Phe Phe Gly Phe Leu Thr Phe Gln Lys Met Lys His
          35   40   45

<210> 141
<211> 70
<212> PRT
<213> Homo sapiens

<400> 141
Met Asn Leu Gly Asn Lys Pro Tyr Phe Leu Ile Thr Met Leu Asp His
 1   5   10   15

Leu Ser Pro Arg Arg Gly Trp Gly Thr Gln Asp Glu Ser Leu Gly Ser
                20   25   30

Leu Trp Tyr Gln Ile Leu Asn Ile Pro Ser Leu Leu Asn Ala Thr Leu
          35   40   45

Leu Leu Pro Leu Leu Glu Gly Lys Asn Ala Lys Met Gly Ile Ser Leu
     50   55   60

Ser Leu Gly Pro Val Pro
 65   70

<210> 142
<211> 11
<212> PRT
<213> Homo sapiens

<400> 142
Met Tyr Trp Tyr Ser Phe Gln Ser Ser Ser Trp
 1   5   10

<210> 143
<211> 230
<212> PRT
<213> Homo sapiens

<400> 143

63

Leu Asp Arg Leu Ser Lys Ala Lys Ile Asp Lys Lys Thr Leu Asp Leu
1   5   10   15

Asn Ala Thr Leu Asp Gln Met Asp Leu Thr Asp Ile Tyr Arg Thr Val
                20   25   30

Tyr Leu Thr Pro Thr Asp Tyr Thr Phe Phe Ser Ser Ala Cys Gly Thr
        35   40   45

Phe Ser Arg Ile Asp His Met Leu Ser His Lys Thr Ser Leu Asn Lys
    50   55   60

Phe Leu Lys Ile Gly Ile Ile Gln Ser Ile Phe Ser Asp His Lys Arg
65   70   75   80

Ile Lys Leu Glu Ile His Thr Lys Arg Asn Phe Gly Asn Tyr Thr Asn
                85   90   95

Thr Trp Lys Leu Asn Met Leu Leu Asn Asn Tyr Trp Val Asn Glu Glu
            100   105   110

Ile Lys Met Glu Ile Ala Lys Phe Leu Lys Thr Asn Arg Asn Gly Asn
            115   120   125

Ala Thr Tyr Gln Asn Met Trp Asp Thr Ala Arg Ala Met Ala Arg Gly
    130   135   140

Asn Leu Thr Val Ile Asn Ala Tyr Ile Lys Lys Val Val Glu Ile Phe
145   150   155   160

Ala Ile Lys Asn Leu Ser Met His Leu Lys Glu Leu Glu Lys Gln Lys
                165   170   175

Gln Thr Asn Pro Gln Ser Ser Arg Gln Lys Glu Ile Met Lys Ser Arg
            180   185   190

Ala Asp Gln Asn Glu Thr Asp Lys Lys Thr Ile Gln Arg Val Asn Glu
        195   200   205

Met Lys Ser Cys Phe Phe Lys Lys Ile Asn Lys Ile Asp Asn Pro Leu
    210   215   220

Ala Ala Leu Thr Lys Lys
225   230

<210> 144
<211> 149

64

<212> PRT
<213> Homo sapiens

<400> 144
Met Tyr Gln Leu Arg Leu Val Thr Leu Phe Gln Ile His Met Lys Gly
 1   5   10   15

Ala Ile Pro Leu Lys Leu Phe Thr Asp Val Leu Cys Lys Arg Trp Ser
            20   25   30

Thr Lys Glu Thr His Gln Met Gly Gly Glu Ala Asp Pro Gly His Ala
        35   40   45

Gln Arg Glu Gln Leu Gly Thr Trp Ala Gly Ile Gly Lys Lys Val Val
    50   55   60

Gln Arg Ala Arg Pro Gly Pro Ala Leu Ser Gly Gly Ser Gly Gly Leu
65   70   75   80

Cys Leu Ser Ala Leu Pro Pro Gly Leu Pro Pro Met Thr Val His Pro
                85   90   95

Cys Arg Asn His Leu Arg Pro Pro Thr Pro Thr Pro Ala Pro Leu Gly
            100   105   110

Ser Tyr His Leu Pro Phe Pro Pro Ser Ser Leu Ser Pro Thr Lys Ala
            115   120   125

Ser Leu Cys Phe Leu Glu Ala Ser Ile Thr Gly Ser Cys Pro Gly Pro
    130   135   140

Ser Trp Gly Thr Arg
145

<210> 145
<211> 31
<212> PRT
<213> Homo sapiens

<400> 145
Met Gly Trp Asn Glu Glu Glu Gln Ser Cys Pro Pro Val Pro Gly Gly
 1   5   10   15

Thr Val Ser Arg Lys Ile His Thr Tyr Leu Lys Leu Gln Lys Gly
            20   25   30

65

<210> 146
<211> 106
<212> PRT
<213> Homo sapiens

<400> 146
Cys Gly Trp Trp Thr Gly Met Pro Gly Ser Ser Pro Gly Ser Leu Leu
 1   5   10   15

Pro Ser Asn Arg Leu Ser Leu Val Pro Leu Val Pro Ser Ala Ser Met
            20   25   30

Thr Arg Leu Met Arg Ser Arg Thr Ala Ser Gly Ser Ser Val Thr Ser
            35   40   45

Leu Asp Gly Thr Arg Ser Arg Ser His Thr Ser Glu Gly Thr Arg Ser
        50   55   60

Arg Ser His Thr Ser Glu Gly Thr Arg Ser Arg Ser His Thr Ser Glu
 65   70   75   80

Gly Ala His Leu Asp Ile Thr Pro Asn Ser Gly Ala Ala Gly Asn Ser
                85   90   95

Ala Gly Pro Lys Ser Met Glu Val Ser Cys
            100   105

<210> 147
<211> 72
<212> PRT
<213> Homo sapiens

<400> 147
Met Ser His Gly Ser Gly Trp Gln Cys Tyr Ser Pro Met Asn Thr Asp
 1   5   10   15

His Ser Ser Asn Thr Gly Asp Trp Ser His Thr Ala Thr Phe Leu Ser
            20   25   30

Arg Gln Arg His Lys Thr Arg Lys Asn Arg Thr Thr Leu Arg Ala Val
            35   40   45

Met Trp Glu Cys Gly Pro Ser Tyr Asn Thr Gln His Gln Asn Trp Thr
        50   55   60

Leu His Leu Lys Gly Phe Lys Thr
 65   70

66

<210> 148
<211> 24
<212> PRT
<213> Homo sapiens

<400> 148
Met Glu Gly Pro Thr Asn Arg Ser Ser Leu Glu Pro Pro Glu Glu Ala
    1   5   10   15

Gln Pro Ser Gln Gln Phe Gly Arg
            20

<210> 149
<211> 70
<212> PRT
<213> Homo sapiens

<400> 149
Met Leu Asp Leu Leu Ile Val Phe Arg Ile Lys Ser Lys Leu Leu Lys
    1   5   10   15

Met Ala Phe His Asp Leu Val Ser Pro His Gln Asn Ala His Thr Met
                20   25   30

Leu Leu Leu Thr Pro Ser Gln Leu Trp Leu Pro Ser Thr Cys Ser Ser
            35   40   45

Gln Ala Ser Thr Ser Phe Leu Val Ser Ala Val Leu Leu Ser Pro Pro
        50   55   60

Ser Leu Leu Ser Pro Gly
    65   70

<210> 150
<211> 46
<212> PRT
<213> Homo sapiens

<400> 150
Met Ser Thr Cys Phe Leu Ala Ser His Gly Asn Ser Cys Leu Leu Cys
    1   5   10   15

Ser Phe Ser Ile Ile Ser Leu Leu Leu Ala Ser Lys Glu Ser Phe Val
            20   25   30

67

Gly Ile Leu Pro Ser Ser Ser Tyr Leu Leu Cys Lys Ile Thr
        35   40   45

<210> 151
<211> 40
<212> PRT
<213> Homo sapiens

<400> 151
Met Glu Arg Phe Lys Glu Arg Gly Arg Gly His Gly Ala Phe Met Pro
  1   5   10   15

Ser Pro Gly Thr Leu Pro Ser Arg Asn Leu Gln Thr Val Gln Leu Ser
            20   25   30

Gly Ser Ser Leu Asn Leu Val Ile
            35   40

<210> 152
<211> 32
<212> PRT
<213> Homo sapiens

<400> 152
Met Leu Gly Ser Glu Cys Leu Leu Phe Met His Leu Leu Lys Lys Leu
  1   5   10   15

Leu Gln Gly Asn Lys Lys Arg Ile Gln Glu Arg Gly His His Gly Leu
            20   25   30

<210> 153
<211> 956
<212> PRT
<213> Homo sapiens

<400> 153
Met Lys Ala Glu Ile Lys Val Phe Phe Glu Thr Asn Glu Asn Lys Asp
  1   5   10   15

Thr Thr Tyr Gln Asn Leu Trp Asp Thr Phe Lys Ala Val Cys Arg Gly
            20   25   30

Lys Phe Ile Ala Leu Asn Ala His Lys Arg Lys Gln Glu Arg Ser Lys
        35   40   45

Ile Asp Thr Leu Thr Ser Gln Leu Lys Glu Leu Glu Lys Gln Glu Gln
        50   55   60

Thr His Ser Lys Ala Ser Arg Arg Gln Glu Ile Thr Lys Ile Arg Ala
65   70   75   80

Glu Leu Lys Glu Ile Gln Thr Gln Lys Thr Leu Gln Lys Ile Asn Glu
                85   90   95

Ser Arg Ser Trp Phe Phe Glu Arg Ile Asn Lys Ile Asp Arg Ser Leu
            100   105   110

Ala Arg Leu Ile Lys Lys Lys Arg Glu Lys Asn Gln Ile Asp Thr Ile
            115   120   125

Lys Asn Asp Lys Gly Asp Ile Thr Thr Asp Pro Thr Glu Ile Gln Thr
        130   135   140

Thr Ile Arg Glu Tyr Tyr Lys His Leu Tyr Ala Asn Lys Leu Glu Asn
145   150   155   160

Leu Glu Glu Met Asp Lys Phe Leu Asp Thr Tyr Thr Leu Pro Arg Leu
                165   170   175

Asn Gln Glu Glu Val Glu Ser Leu Asn Arg Pro Ile Thr Gly Ala Glu
            180   185   190

Ile Val Ala Ile Ile Asn Ser Leu Pro Thr Lys Lys Ser Pro Gly Pro
            195   200   205

Asp Gly Phe Thr Ala Glu Phe Tyr Gln Ser Trp Ala Glu Thr Gln Pro
        210   215   220

Lys Lys Glu Asn Phe Arg Pro Ile Ser Leu Met Asn Ile Asp Ala Lys
225   230   235   240

Ile Leu Asn Lys Ile Leu Ala Lys Arg Ile Gln Gln His Ile Lys Lys
                245   250   255

Leu Ile His His Asp Gln Val Gly Phe Ile Pro Gly Met Gln Gly Trp
            260   265   270

Phe Asn Ile Arg Lys Ser Ile Asn Val Thr Gln His Ile Asn Arg Ala
        275   280   285

69

Lys Asp Lys Asn His Met Ile Ile Ser Ile Asp Ala Glu Lys Ala Phe
    290   295   300

Asp Lys Ile Gln Gln Pro Phe Met Leu Lys Thr Leu Asn Lys Leu Gly
305   310   315   320

Ile Asp Gly Thr Tyr Phe Lys Ile Ile Arg Ala Ile Tyr Asp Asn Pro
                325   330   335

Thr Ala Asn Ile Ile Leu Asn Gly Gln Lys Leu Glu Ala Phe Pro Leu
                340   345   350

Lys Thr Gly Thr Arg Gln Gly Cys Pro Leu Ser Pro Leu Leu Phe Asn
                355   360   365

Ile Val Leu Glu Val Leu Ala Arg Ala Ile Arg Gln Glu Lys Glu Ile
                370   375   380

Lys Gly Ile Gln Leu Gly Lys Glu Glu Val Lys Leu Ser Leu Phe Ala
385   390   395   400

Asp Asn Met Ile Val Tyr Leu Glu Asn Pro Ile Val Ser Ala Gln Asn
                405   410   415

Leu Leu Lys Leu Ile Ser Asn Phe Ser Lys Val Ser Gly Tyr Lys Ile
                420   425   430

Asn Val Gln Lys Ser Gln Ala Phe Leu Tyr Thr Asn Asn Arg Gln Thr
                435   440   445

Glu Ser Gln Ile Met Ser Gln Leu Pro Phe Thr Ile Ala Ser Lys Arg
    450   455   460

Ile Lys Tyr Leu Gly Ile Gln Leu Thr Arg Asp Val Lys Asp Leu Phe
465   470   475   480

Lys Glu Asn Tyr Lys Pro Leu Leu Lys Glu Ile Lys Glu Asp Thr Asn
                485   490   495

Lys Trp Lys Asn Ile Pro Cys Ser Gly Glu Gly Arg Ile Asn Ile Val
                500   505   510

Lys Met Ala Ile Leu Pro Lys Glu Leu Glu Lys Thr Thr Leu Lys Phe
    515   520   525

Ile Trp Asn Gln Lys Arg Ala His Ile Ala Lys Ser Ile Leu Asn Gln
    530   535   540

70

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Lys Asn Lys Ala Gly Gly Ile Thr Leu Pro Asp Phe Lys Leu Tyr Tyr
545             550             555             560

Lys Ala Thr Val Thr Lys Thr Ala Trp Tyr Trp Tyr Gln Asn Arg Asp
            565             570             575

Ile Asp Gln Trp Asn Arg Thr Glu Pro Ser Glu Ile Thr Gln His Ile
            580             585             590

Tyr Ser Tyr Leu Ile Phe Asp Lys Pro Glu Lys Asn Lys Gln Trp Gly
        595             600             605

Lys Asp Ser Leu Phe Asn Lys Trp Cys Trp Glu Asn Trp Leu Ala Ile
        610             615             620

Cys Arg Lys Leu Lys Leu Asp Pro Phe Leu Thr Pro Tyr Thr Lys Met
625             630             635             640

Asn Ser Arg Trp Ile Lys Asp Leu Asn Val Arg Pro Lys Thr Ile Lys
            645             650             655

Thr Leu Glu Glu Asn Leu Gly Ile Thr Ile Gln Asp Ile Gly Met Gly
            660             665             670

Lys Asp Phe Met Ser Lys Thr Pro Lys Ala Met Ala Thr Lys Asp Lys
        675             680             685

Ile Asp Lys Trp Asp Leu Val Lys Leu Lys Ser Phe Cys Thr Ala Lys
        690             695             700

Glu Thr Thr Ile Arg Val Asn Arg Gln Pro Thr Lys Trp Glu Lys Ile
705             710             715             720

Phe Ala Thr Tyr Ser Ser Asp Lys Gly Leu Ile Ser Arg Ile Tyr Asn
            725             730             735

Glu Leu Lys Gln Ile Tyr Lys Lys Lys Thr Asn Asn Pro Ile Lys Lys
            740             745             750

Trp Ala Lys Asp Met Asn Arg His Phe Ser Lys Glu Asp Ile Tyr Ala
        755             760             765

Ala Lys Lys His Met Lys Lys Cys Ser Ser Ser Leu Ala Ile Arg Glu
        770             775             780

Met Gln Ile Lys Thr Thr Met Arg Tyr His Leu Thr Pro Val Arg Met
785             790             795             800

                        71
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Ala Ile Ile Lys Lys Ser Gly Asn Asn Arg Cys Trp Arg Gly Cys Gly
            805                 810                 815

Glu Thr Gly Thr Leu Leu His Cys Trp Asp Cys Lys Leu Ala Gln
            820                 825                 830

Pro Leu Trp Lys Ser Val Trp Arg Phe Leu Arg Asp Leu Glu Leu Glu
            835                 840                 845

Ile Pro Phe Asp Pro Ala Ile Pro Leu Leu Gly Ile Tyr Pro Lys Asp
            850                 855                 860

Tyr Lys Ser Cys Cys Tyr Lys Asp Thr Cys Thr Arg Met Phe Ile Ala
865                 870                 875                 880

Ala Leu Phe Thr Ile Ala Lys Thr Trp Asn Gln Pro Lys Cys Pro Thr
            885                 890                 895

Ile Ile Asp Trp Ile Lys Lys Met Trp His Ile Tyr Thr Met Glu Tyr
            900                 905                 910

Tyr Ala Ala Ile Lys Asn Asp Glu Phe Val Ser Phe Val Gly Thr Trp
            915                 920                 925

Met Lys Leu Glu Ile Ile Ile Leu Ser Lys Leu Ser Gln Glu Gln Lys
            930                 935                 940

Thr Thr His Arg Ile Phe Ser Leu Ile Gly Gly Asn
945                 950                 955


<210> 154
<211> 39
<212> PRT
<213> Homo sapiens

<400> 154
Met Ile Ile Thr Ser Gln Gly Asn Phe Leu Phe Pro Leu Phe Ile Ser
  1                 5                 10                15

Leu Leu His His Tyr Ser Gln Ser Leu Ser Leu Phe Pro Lys Glu Val
            20                  25                  30

Phe His Gly Phe Leu Thr Asp
            35
```

72

<210> 155
<211> 37
<212> PRT
<213> Homo sapiens

<400> 155
Met Val Leu Ser Cys Tyr Ser Leu Val Thr Phe Arg Ser Ser Leu Leu
1   5   10   15

Thr Lys Gly Lys Ile Ile Tyr Lys Tyr Gln Met Thr Ile Glu Leu Ser
            20   25   30

Gln Leu Met Phe Phe
        35

<210> 156
<211> 110
<212> PRT
<213> Homo sapiens

<400> 156
Met Gly Cys His Gly Gly Ala Arg Asp Ser Cys Val Asn Arg Glu Cys
1   5   10   15

Gly Phe Leu Gln Arg Gly Val Trp Arg Trp Thr Ser Arg Ser Phe Trp
            20   25   30

Ser Leu Arg Glu Gly Gln Gln Ser Ser Arg His Phe Met Asn His Ile
        35   40   45

Leu Ala Val Ala Ala Phe Ala Ser Pro Gly Gly Trp Ser His Ala Leu
    50   55   60

Ala Ala Arg Leu Arg His Pro Pro Val His Ser Val Pro Trp Pro Pro
65   70   75   80

Ala Val Gly Leu Ala Leu Phe Ser Thr Asn Asn Pro Gln Cys Ile Val
                85   90   95

Met Thr Ser Ala Thr Asn Val Asp Val Ser Met Tyr His Ile
            100   105   110

<210> 157
<211> 62
<212> PRT
<213> Homo sapiens

73

<400> 157

Met Gly Ser His Phe Pro Gln Ser Arg Trp His Lys Leu His Glu Val
 1   5   10   15

Ala Ala Val Pro Leu His Pro Asp Gln Ser Leu Ala Pro Gln Trp Asn
             20   25   30

His Thr Pro Pro Leu Pro Glu Ala Glu Ser Leu Phe Tyr Gly Arg Ala
         35   40   45

Ala Ala Leu Gly Thr Phe Leu Asn Ser Pro Val Phe His Leu
     50   55   60

<210> 158
<211> 241
<212> PRT
<213> Homo sapiens

<400> 158

Glu Gly Cys Leu Trp Pro Ser Glu Ser Thr Val Ser Gly Asn Gly Ile
 1   5   10   15

Pro Glu Cys Pro Cys Cys Trp Asp Pro Pro Cys Arg Arg Ser Ser Ala
             20   25   30

Pro Cys Pro Ala Gly Ser Ser Pro Ala Leu Cys Ser Leu His Thr Gly
         35   40   45

Ala Arg Thr Leu Pro Leu Phe Gly Gly Gly Arg Pro Gln Val Tyr Ala
     50   55   60

Pro Pro Arg Pro Thr Asp Arg Leu Ala Val Pro Pro Phe Ala Gln Arg
 65   70   75   80

Glu Arg Phe His Arg Phe Gln Pro Thr Tyr Pro Tyr Leu Gln His Glu
             85   90   95

Ile Asp Leu Pro Pro Thr Ile Ser Leu Ser Asp Gly Glu Glu Pro Pro
             100   105   110

Pro Tyr Gln Gly Pro Cys Thr Leu Gln Leu Arg Asp Pro Glu Gln Gln
         115   120   125

Leu Glu Leu Asn Arg Glu Ser Val Arg Ala Pro Pro Asn Arg Thr Ile
     130   135   140

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Phe Asp Ser Asp Leu Met Asp Ser Ala Arg Leu Gly Gly Pro Cys Pro
145                 150                 155                     160

Pro Ser Ser Asn Ser Gly Ile Ser Ala Thr Cys Tyr Gly Ser Gly Gly
                165                 170                 175

Arg Met Glu Gly Pro Pro Pro Thr Tyr Ser Glu Val Ile Gly His Tyr
            180             185                 190

Pro Gly Ser Ser Phe Gln His Gln Gln Ser Ser Gly Pro Pro Ser Leu
        195                 200                 205

Leu Glu Gly Thr Arg Leu His His Thr His Ile Ala Pro Leu Glu Ser
        210                 215                 220

Ala Ala Ile Trp Ser Lys Glu Lys Asp Lys Gln Lys Gly His Pro Leu
225                 230                 235                     240

Leu


<210> 159
<211> 50
<212> PRT
<213> Homo sapiens

<400> 159
Met Ile His Phe Leu Ser Phe Ser Thr Asn Asn Ala Tyr Ala Leu Asp
 1               5                   10                  15

Leu Pro Glu Tyr Ser Trp Thr Thr Asp Leu Cys Lys Lys Leu Phe Phe
            20                  25                  30

Leu Lys Ile Ala Ser Lys Gln Asn Gly Phe Asn Lys Leu Gln Asn Arg
        35                  40                  45

Gln Pro
    50


<210> 160
<211> 37
<212> PRT
<213> Homo sapiens

<400> 160
Met Ile Cys Pro Phe Phe Leu His Ser Phe Thr Ser Ser Ser Phe Tyr
```

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            1                5                      10                           15
Cys Tyr Phe Leu Lys Arg Ile Asn Pro Leu Ala Val Leu Phe Arg Val
                20                      25                      30

Phe Phe Thr Leu Phe
            35



<210> 161
<211> 75
<212> PRT
<213> Homo sapiens

<400> 161
Met Leu Val Lys Ser Arg Cys Leu Cys Leu Cys Pro Phe Cys Leu Gly
    1                5                      10                      15

Leu Leu Glu Thr Asp Ala Gly Gly Ser Val Ala Pro His Cys Ser Gly
                20                      25                      30

Tyr Val Pro Trp Ser Gln Ala Leu Leu Leu Leu Arg Ser Leu Leu Glu
                35                      40                      45

Met Gln Asn Leu Arg Pro Asn Ser Arg Pro Met Thr Gln Ser Leu His
        50                      55                      60

Phe Asn Arg Cys Leu Cys Asp Ser Cys Ala Gly
    65                      70                      75



<210> 162
<211> 105
<212> PRT
<213> Homo sapiens

<400> 162
Gln Met Gln Gln Gln Asn Thr Gln Lys Val Glu Ala Ser Lys Val Pro
    1                5                      10                      15

Glu Tyr Ile Lys Lys Ala Ala Lys Lys Ala Ala Glu Phe Asn Ser Asn
                20                      25                      30

Leu Asn Arg Glu Arg Met Glu Glu Arg Arg Ala Tyr Phe Asp Leu Gln
            35                      40                      45

Thr His Val Ile Gln Val Pro Gln Gly Lys Tyr Lys Val Leu Pro Thr
        50                      55                      60
```

76

Glu Arg Thr Lys Val Ser Ser Tyr Pro Val Ala Leu Ile Pro Gly Gln
 65   70   75   80

Phe Gln Glu Tyr Tyr Lys Ser Ile Ala Ala Phe Ala Leu His Cys Ile
                 85   90   95

Gly Tyr Trp Ala Gly Val Ser Glu Pro
            100   105

<210> 163
<211> 44
<212> PRT
<213> Homo sapiens

<400> 163
Met Thr Pro His Cys Pro Gln Asn Arg Leu His Phe Leu Leu Ala Tyr
 1   5   10   15

Lys Ala Asn Leu Asn Leu Thr Pro Gly Arg His Pro Ala Thr Val Thr
                20   25   30

His Ile Leu Val Ile Pro Ser Thr Ile Gly Arg Leu
            35   40

<210> 164
<211> 25
<212> PRT
<213> Homo sapiens

<400> 164
Met Thr Met Trp Asn Cys Leu Leu Thr Cys Lys Val Thr His Asn Ile
 1   5   10   15

Met Val Lys Phe Leu Lys Ser Asn Tyr
                20   25

<210> 165
<211> 67
<212> PRT
<213> Homo sapiens

<400> 165
Met Thr Gly Tyr Cys Met Trp Glu Ile Met Lys Pro Phe Ala Val Ser
 1   5   10   15

Ser Pro Val Ser Phe Arg Val Ser Val Leu Ser Lys Pro Pro Cys Glu
            20   25   30

Val Asn Gln Met Leu Asp Phe Phe Pro Gln Ser His Gln Leu Pro Arg
            35   40   45

Glu Arg Asp Thr Tyr Arg Thr Leu Pro Ser Ala Tyr Ser Ser Ser Ala
        50   55   60

Pro Ser Thr
 65

<210> 166
<211> 42
<212> PRT
<213> Homo sapiens

<400> 166
Met Leu Glu Met Ser Phe Ala Leu Pro Glu Phe Ala Lys Gly Ala His
 1   5   10   15

Arg Lys Gln Ile Glu Lys His Pro Leu Gly Thr Ser Leu Gln Cys Leu
            20   25   30

Leu Leu Thr Lys Phe Asn Ile Ile Asn Thr
            35   40

<210> 167
<211> 47
<212> PRT
<213> Homo sapiens

<400> 167
Met Ala Ser Val Ala Arg Lys Tyr Ala Lys Glu Glu Val Asn Pro Ile
 1   5   10   15

Ala Gly Leu Glu Asp Ser Asp Gln Thr Thr Arg Gly Leu Leu Asn Lys
            20   25   30

Gly Arg Arg Cys Pro Cys Leu Met Gly Leu Ala Trp Gly Gly Gly
            35   40   45

<210> 168
<211> 74

<212> PRT
<213> Homo sapiens

<400> 168
Met Arg Phe Ser His Phe Phe Pro Val Phe Phe Ile Thr Phe Arg Lys
 1   5   10   15

Ala Ile Leu Phe Ser Leu Tyr Thr Thr Cys Thr Leu Leu Val Gly Leu
            20   25   30

Ile Pro Arg Cys Ile Asn Ile Ile Ala Phe Met Asn Gly Ile Phe Phe
        35   40   45

Ile Val Phe Ser Asn Cys Leu Leu Asp Tyr Met Glu Ile Asp Phe Trp
        50   55   60

His Ala Asp Ile Ser Ser Lys Lys Leu Tyr
 65   70

<210> 169
<211> 27
<212> PRT
<213> Homo sapiens

<400> 169
Met Thr Lys Tyr Ser Pro Leu Pro Leu Phe Leu His Phe Ile Leu Thr
 1   5   10   15

Thr Ile Phe Phe Leu Ala Pro Phe Pro Leu Phe
            20   25

<210> 170
<211> 54
<212> PRT
<213> Homo sapiens

<400> 170
Met Leu Lys Val Arg Arg Leu Lys Asn Xaa Arg Ala Thr Val Trp Leu
 1   5   10   15

Pro Gly Ile Gly Lys Gln Val Met Asp Phe Ser Leu Lys Gly Glu Ile
            20   25   30

Ser Gly Val Gln Leu Gln His Leu Leu Leu Ile Asn Leu Ser Val Cys
        35   40   45

Ala Ser Ser Ser Ile Glu
    50

<210> 171
<211> 14
<212> PRT
<213> Homo sapiens

<400> 171
Met Pro Thr Gln Arg Gln Pro Leu Ser Ser Gln Ala Val Lys
  1   5   10

<210> 172
<211> 42
<212> PRT
<213> Homo sapiens

<400> 172
Met Ala Ala Ser Val Leu Gln Ser Arg Trp Leu Ile Val Ile Leu Val
  1   5   10   15

Gln Lys Arg Ile His Thr His Thr Tyr Lys Tyr Val Ser Cys Leu Asp
             20   25   30

Pro Gln Glu Phe His Val Ser Leu Tyr Leu
          35   40

<210> 173
<211> 121
<212> PRT
<213> Homo sapiens

<400> 173
Met Arg Thr Ser Lys Trp Ile Pro Pro Cys Lys Cys Gly Ala Gly Ala
  1   5   10   15

Thr Arg His Cys Ser Gly His Ala Ser Lys Thr Gln Ala Glu Gly Ala
             20   25   30

Ala His His Ala Gly Asp Gly Leu Lys Ala Pro Val His Ala Trp Asp
          35   40   45

Ser Ala Gln Gly Pro Cys Ser Cys Leu Gly Gln Ala Pro Gly Pro Pro
     50   55   60

                              80

Leu Ala Ala Val Ser Ser Gly Gln Gly Gly Gly Gly Arg Tyr Gly His
 65   70   75   80

Ser Val Gly Arg Ser Trp Glu Asn Lys Ala Tyr Tyr Trp Thr Pro Gly
                 85   90   95

Gly His Gly Asn His Thr Arg Met Pro Glu Thr Glu Asn Leu Trp Ala
             100   105   110

Ser Arg Ser Ser Ser Ser Cys Thr Gly
         115   120

<210> 174
<211> 25
<212> PRT
<213> Homo sapiens

<400> 174
Met Gly Asn Tyr Ala Asn Asn Lys Lys Arg Thr Leu Arg Ser Ile Asn
 1   5   10   15

Thr Val His Lys Tyr Gly Gly Leu Phe
             20   25

<210> 175
<211> 33
<212> PRT
<213> Homo sapiens

<400> 175
Met Pro Ser Phe Arg Ile Leu Asp Thr Cys Cys Phe Ser Pro Ser His
 1   5   10   15

Glu Thr Phe Cys Lys Asn Lys Glu Arg Gly Ile Thr Val Cys His His
             20   25   30

Ser

<210> 176
<211> 30
<212> PRT
<213> Homo sapiens

<220>

<221> UNSURE
<222> (7)

<220>
<221> UNSURE
<222> (11)

<400> 176
Met Ile Phe Pro Val Lys Xaa Leu Ile Arg Xaa Ile Pro Arg Asn Leu
1   5   10   15

Leu Tyr Ile Met Asp Phe Asp Ile Tyr Leu Val Lys Val Lys
            20   25   30

<210> 177
<211> 42
<212> PRT
<213> Homo sapiens

<400> 177
Met Val Ala Ser Val Met Glu Ser Ala Asp Leu Glu Glu Gln Thr Gln
1   5   10   15

Leu Val Thr Glu Leu Pro Gly Gly Arg Leu Ser Leu Gly Met Glu Gly
            20   25   30

Tyr Arg Asn Phe Arg Val Leu Gln Asn Phe
        35   40

<210> 178
<211> 80
<212> PRT
<213> Homo sapiens

<400> 178
Met Tyr Phe Pro Pro Ala Phe Phe Phe Pro Phe Glu Tyr Val Ser Leu
1   5   10   15

Asn Leu Phe Ser Lys Ser Ala Arg Leu Ala Leu Ser Ser His Phe Leu
            20   25   30

Ser Leu Ser Ser Ser Tyr Leu Ser Val Phe Phe Leu Leu Val Leu Leu
            35   40   45

Phe Leu Tyr Phe Ser Pro Ser Leu His Ile His His His Lys Gln Thr
    50   55   60

82

Tyr Thr Phe Gln Lys Leu Val Pro Phe Trp Pro Pro Phe Asn Asn Arg
 65   70   75   80

<210> 179
<211> 40
<212> PRT
<213> Homo sapiens

<400> 179
Met Arg Val Trp Asp Pro Phe Leu Thr Leu Ile Leu Ile Lys Gln Gln
 1   5   10   15

Ile Phe Ile Ile Asn Glu Ile Tyr Asn Tyr Val Asn Leu Ile Asp Ile
            20   25   30

Gly Ile Val Ser Arg Ile Phe Ile
        35   40

<210> 180
<211> 82
<212> PRT
<213> Homo sapiens

<400> 180
Met Arg Tyr Thr Arg Gly Arg Arg Pro Lys Arg Arg Tyr Ile Gly His
 1   5   10   15

Leu Pro Val Phe Phe Gln Val His Phe Leu Pro Phe Ser Ala Leu Cys
            20   25   30

Tyr Asn Ser Glu Thr Asn Ile Phe Gln Leu Ser Cys Phe Leu Asp Phe
        35   40   45

Lys Lys Ala Ser Glu Arg His Cys Gly Lys Pro Lys Gly Pro Met Trp
    50   55   60

Lys Gln Ala Thr Phe His Leu Leu Arg Leu Ser Ala Ser Ser Ser Ile
 65   70   75   80

Cys Ser

<210> 181
<211> 23
<212> PRT
<213> Homo sapiens

<400> 181
Met Asp Val Ile Asp Val Pro Lys Glu Ser Val Leu Asn Leu Ile Gln
 1   5   10   15

Ser Pro Gly Ser Ser Cys Leu
             20

<210> 182
<211> 95
<212> PRT
<213> Homo sapiens

<400> 182
Met Arg Ser Ala Glu Lys Glu Arg Glu Glu Asn Thr Asn Lys Ser Leu
 1   5   10   15

Ser Ser Leu Ser Pro Val Ser Phe Pro Gln His Val Lys Gly Pro Gly
             20   25   30

Pro Lys Phe Pro Leu Pro Cys Val Leu Glu Ala Leu Leu Leu Phe Asn
             35   40   45

Leu Asp Thr Leu Lys Arg Glu Ala Gln Asn Thr Val Thr Val Leu Asn
    50   55   60

Ser Lys Pro Cys His Val Thr Ser Leu His Thr Gly Leu Ala Glu Thr
 65   70   75   80

Ser Val Gly Lys Gly Ala Ala Glu Asn Ser Val Lys Arg Lys Gln
                 85   90   95

<210> 183
<211> 31
<212> PRT
<213> Homo sapiens

<400> 183
Met Arg Asn Leu Met Trp Gly Ile Arg Glu Arg Ile Lys Ser Asp Phe
 1   5   10   15

84

Arg Val Phe Gly Val Ser Ile Trp Lys Ser Glu Val Ala Ile His
          20   25   30

<210> 184
<211> 54
<212> PRT
<213> Homo sapiens

<400> 184
Met Ser Phe Pro Thr Lys Gln Phe Gly Val Thr Thr Val Ile Pro Val
 1   5   10   15

Ser Tyr Gly Trp Gly Leu Cys Ile Gly Met Cys Thr Leu Lys Phe Ile
          20   25   30

His Leu Phe Ser Thr Ile Leu Phe Glu His Leu Leu Ser Val Arg Ala
          35   40   45

Leu Ser Val Val Arg Tyr
      50

<210> 185
<211> 13
<212> PRT
<213> Homo sapiens

<400> 185
Met Lys Arg Glu Leu Ser Ile Leu Ile Lys Ser Lys Gly
 1   5   10

<210> 186
<211> 51
<212> PRT
<213> Homo sapiens

<400> 186
Lys Ile Gln Ala Lys Gln Ile Lys Lys Arg Ile Gln Arg Ile Ile His
 1   5   10   15

His Asp Gln Val Gly Phe Ile Pro Gly Ile Gln Gly Trp Phe Asn Ile
          20   25   30

Ala Lys Ser Ile Asp Glu Thr His Lys Ile Glu Arg Ile Lys Met Arg
          35   40   45

Ser Leu Met
    50

<210> 187
<211> 14
<212> PRT
<213> Homo sapiens

<400> 187
Met Lys Gly Ser Tyr Leu Ile Pro Asn Phe Leu Leu Glu Pro
  1   5   10

<210> 188
<211> 56
<212> PRT
<213> Homo sapiens

<400> 188
Met Asp Val Ser Ala Cys Gly Arg Leu Tyr Phe Ser Lys Met Thr Thr
  1   5   10   15

Lys Ile Ser Pro Ile Ser Cys Val Ile Leu Gln Trp Gly Leu Cys Pro
              20   25   30

Leu Phe Leu Asn Val Cys Ala Leu Val Thr Ala Leu Thr Asn Arg Val
          35   40   45

Trp Gly Arg Met Pro Cys Asp Phe
    50   55

<210> 189
<211> 29
<212> PRT
<213> Homo sapiens

<400> 189
Met Ala Leu Lys Arg Ile Val Ser His Ser Thr Arg Glu Gly Gly Thr
  1   5   10   15

His Leu Glu Arg Cys His Arg Thr Pro Ile Pro Ser Gly
              20   25

<210> 190
<211> 34

<212> PRT
<213> Homo sapiens

<400> 190
Met Thr Lys Pro Pro Ile Leu Thr Pro Trp Ser Leu Leu Ser Arg Ser
 1   5   10   15

Pro Leu Cys Ser Phe Gln Ser His Glu Glu Gly Glu Gly Arg Pro Arg
            20   25   30

Gln Gly

<210> 191
<211> 42
<212> PRT
<213> Homo sapiens

<400> 191
Met Pro Glu Ala Leu Pro Gly Pro Gly Arg Ile Lys Ser Leu Thr Val
 1   5   10   15

Trp Gly Leu Val Trp Pro Phe Thr His Ile Thr Leu Gln Asn Thr Phe
            20   25   30

Gln Gly Asp Ile Ser Val Ser Ser Ile Leu
            35   40

<210> 192
<211> 59
<212> PRT
<213> Homo sapiens

<400> 192
Met Val Gly His Lys Cys Leu Phe Asn Phe Asp Leu Leu Ala Phe Ser
 1   5   10   15

Ile Gln Ala Val Thr Leu Pro His Lys Thr Leu Gly Ala Leu Ala Arg
            20   25   30

Gly Asp Cys Thr Ser Ser Pro Gln Met Phe Ser Lys Lys Leu Pro Gly
            35   40   45

Thr Leu Leu Leu Gly Tyr Thr Lys Ser Arg Gln
    50   55

<210> 193
<211> 87
<212> PRT
<213> Homo sapiens

<400> 193
Arg Gln Cys Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Thr Ile
1   5   10   15

Ala Ala His Cys Asn Pro Arg Leu Pro Gly Ser Ser Asp Ser Tyr Ala
            20   25   30

Ser Ala Ser Arg Ala Ala Gly Ile Thr Asp Ala His Gln Asp Thr Gln
        35   40   45

Pro Ile Phe Val Phe Leu Val Glu Met Gly Leu His His Val Cys Gln
    50   55   60

Ala Gly Leu Glu Leu Leu Thr Ser Ser Asp Leu Pro Thr Leu Ala Ser
65   70   75   80

Gln Val Leu Gly Leu Gln Ala
                85

<210> 194
<211> 117
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (34)..(72)

<220>
<221> UNSURE
<222> (102)

<220>
<221> UNSURE
<222> (113)

<400> 194
Met Gly Lys Ala Leu Phe Cys Gly Leu Trp Pro Leu Lys Ser Ile Cys
1   5   10   15

Leu Leu Leu Leu Ser Gln Gly Ser Asp Ala Ala Leu Thr Ile Leu Leu

Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
        35   40   45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    50   55   60

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Val Lys Cys Thr Glu Ala Cys
    65   70   75   80

Ile Phe Glu Thr Ser Lys Gly Arg Arg Leu Arg Arg Ser Pro Leu Gln
                    85   90   95

Gly His Leu His Leu Xaa Tyr Val Ala Phe Pro Ser Asn Asn Glu Ala
                    100   105   110

Xaa His Trp Val Leu
        115

<210> 195
<211> 47
<212> PRT
<213> Homo sapiens

<400> 195
Met Trp Val Ala Val Pro Asp Phe Pro Leu Leu Pro Ala Val Gly Asp
    1   5   10   15

Glu Leu Leu Ala Leu Gly Pro Asp Phe Pro Gly Trp Pro Leu Arg Ser
                    20   25   30

Arg Gly Phe Lys Phe Ser Trp Ser Cys Ser Val Leu Val Gln His
            35   40   45

<210> 196
<211> 34
<212> PRT
<213> Homo sapiens

<400> 196
Met Phe Ser Leu Thr Pro Leu Glu Lys Ser Pro Ser Trp Leu Leu Ser
    1   5   10   15

Gln His Cys Pro Leu Val Ala Cys Ser Pro Trp Cys Phe Leu Ala Val
            20   25   30

Ala Thr

<210> 197
<211> 51
<212> PRT
<213> Homo sapiens

<400> 197
Met Pro Phe Pro Trp Gly Gly Leu Pro Ser Leu Ser Asn Ser Ser Leu
 1   5   10   15

Cys Trp Ser Ser Leu Pro Cys His Ser Thr Leu Ser Phe His Ser Val
            20   25   30

Cys Trp Tyr Cys Lys Tyr Leu Ile Leu Cys Ile Cys Ser Leu Ser Ala
        35   40   45

Ser Ser Gln
    50

<210> 198
<211> 286
<212> PRT
<213> Homo sapiens

<400> 198
Asn Phe Leu Glu Thr Asp Asn Glu Gly Asn Gly Ile Leu Arg Arg Arg
 1   5   10   15

Asp Ile Lys Asn Ala Leu Tyr Gly Phe Asp Ile Pro Leu Thr Pro Arg
            20   25   30

Glu Phe Glu Lys Leu Trp Ala Arg Tyr Asp Thr Glu Gly Lys Gly His
        35   40   45

Ile Thr Tyr Gln Glu Phe Leu Gln Lys Leu Gly Ile Asn Tyr Ser Pro
    50   55   60

Ala Val His Arg Pro Cys Ala Glu Asp Tyr Phe Asn Phe Met Gly His
 65   70   75   80

Phe Thr Lys Pro Gln Gln Leu Gln Glu Glu Met Lys Glu Leu Gln Gln
                85   90   95

90

Ser Thr Glu Lys Ala Val Ala Ala Arg Asp Lys Leu Met Asp Arg His
            100   105   110

Gln Asp Ile Ser Lys Ala Phe Thr Lys Thr Asp Gln Ser Lys Thr Asn
            115   120   125

Tyr Ile Ser Ile Cys Lys Met Gln Glu Val Leu Glu Glu Cys Gly Cys
        130   135   140

Ser Leu Thr Glu Gly Glu Leu Thr His Leu Leu Asn Ser Trp Gly Val
145   150   155   160

Ser Arg His Asp Asn Ala Ile Asn Tyr Leu Asp Phe Leu Arg Ala Val
                165   170   175

Glu Asn Ser Lys Ser Thr Gly Ala Gln Pro Lys Glu Lys Glu Glu Ser
            180   185   190

Met Pro Ile Asn Phe Ala Thr Leu Asn Pro Gln Glu Ala Val Arg Lys
            195   200   205

Ile Gln Glu Val Val Glu Ser Ser Gln Leu Ala Leu Ser Thr Ala Phe
        210   215   220

Ser Ala Leu Asp Lys Glu Asp Thr Gly Phe Val Lys Ala Thr Glu Phe
225   230   235   240

Gly Gln Val Leu Lys Asp Phe Cys Tyr Lys Leu Thr Asp Asn Gln Tyr
                245   250   255

His Tyr Phe Leu Arg Lys Leu Arg Ile His Leu Thr Pro Tyr Ile Asn
            260   265   270

Trp Lys Tyr Phe Leu Gln Asn Phe Ser Cys Phe Leu Glu Glu
            275   280   285

<210> 199
<211> 64
<212> PRT
<213> Homo sapiens

<400> 199
Met Ser Gln Gln Gly Phe Phe Arg Leu Phe Gly Ile Tyr Ser Leu Pro
    1   5   10   15

Ala Arg Pro Val Asn Ser Ser Arg Phe Ser Val Ser Phe Gln Ile Gly
                20   25   30

91

Thr Thr Arg Asn His Gln Leu Leu Ser Tyr Thr Leu Asp Met Leu His
        35   40   45

His Phe Asp Val Val Gly Phe Asp Tyr Tyr Lys Ile Asp Pro Asn Tyr
        50   55   60

<210> 200
<211> 35
<212> PRT
<213> Homo sapiens

<400> 200
Met Asn Lys Ile Ser Cys Phe Asn Glu Ala Asn Met Thr Ile Gln Gln
 1   5   10   15

Cys Gly Phe Gly Ile Arg Lys Ile Leu Lys Ile Leu Ile Val Ser Phe
            20   25   30

Ser Leu Pro
        35

<210> 201
<211> 66
<212> PRT
<213> Homo sapiens

<400> 201
Met Ser Leu Ile Leu Thr Phe His Leu Leu Leu Thr Arg Gln Ala Leu
 1   5   10   15

Ser Pro Leu Thr Trp Ile Thr Glu Leu Thr Ser Glu Leu Gln Val Val
            20   25   30

Ala Ser Ser Gly Pro Val Pro Ser Val Leu Phe Leu Pro Ala Arg Ile
        35   40   45

Thr Cys Arg Ala Asp Arg Leu Phe Ala His Gly Leu His Lys Ala Ser
        50   55   60

Arg Ala
 65

<210> 202
<211> 27
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (16)

<220>
<221> UNSURE
<222> (20)

<400> 202
Met Tyr Ala Thr Lys Lys His Val Ser Met Cys Val Asn Leu Lys Xaa
1   5   10   15

Ile Asn Gly Xaa Phe Trp Glu Val Phe Arg Ser
            20   25

<210> 203
<211> 47
<212> PRT
<213> Homo sapiens

<400> 203
Met Pro Cys Leu Phe Ser Thr Ser Thr Phe Asn Phe Leu Thr Lys Ile
1   5   10   15

Lys Cys Tyr Val Phe Ser Lys Ala Asp Leu Leu Pro Ser Ser Leu Ser
            20   25   30

Phe Gly Ser Ser His Tyr Gln His Ser His Pro Pro Thr Leu Lys
            35   40   45

<210> 204
<211> 19
<212> PRT
<213> Homo sapiens

<400> 204
Met His Gln Ser Val Ser Leu Arg Thr Ala Trp Ala Arg His Gly Trp
1   5   10   15

Ser Arg Leu

93

<210> 205
<211> 22
<212> PRT
<213> Homo sapiens

<400> 205
Met Lys Ile Gln Gly Lys Asn Ile Tyr Asn Thr Thr Met Leu Lys Asp
1   5   10   15

Pro Phe Phe Tyr Leu Thr
            20

<210> 206
<211> 29
<212> PRT
<213> Homo sapiens

<400> 206
Met Lys Phe His Ser Asp Pro Ser Cys Val Pro Ser Ile Gln Ile Asn
1   5   10   15

Lys Arg Asp Tyr Arg Arg Gly Pro Leu Arg Leu Ala Asn
            20   25

<210> 207
<211> 21
<212> PRT
<213> Homo sapiens

<400> 207
Met Leu Pro Pro Tyr Leu Pro Lys Leu Leu Leu Gln Phe Val Phe Leu
1   5   10   15

Pro Val Ile Tyr Lys
            20

<210> 208
<211> 29
<212> PRT
<213> Homo sapiens

<400> 208

Met Arg Asn Val Gln Arg Lys Phe Tyr Asn Lys Arg Val Gln Gln Gly
1   5   10   15

Cys Lys Ile Lys Asp Lys His Ile Asn Ser Ser Cys Ile
                20   25

<210> 209
<211> 42
<212> PRT
<213> Homo sapiens

<400> 209
Met Glu Leu Pro Leu Phe Ser Leu Ser Cys Ser Tyr Lys Pro Cys Ala
1   5   10   15

Phe Phe Asp His Ser Thr Ala Thr Ala Ala Leu Val Met Pro Phe Leu
                20   25   30

Ile Ile Pro Gly Ser His Thr Thr Arg Pro
        35   40

<210> 210
<211> 18
<212> PRT
<213> Homo sapiens

<400> 210
Met Gly Tyr Leu Gly Leu Gly Met Ala Ala Gly Phe Lys Glu Arg Val
1   5   10   15

Val Glu

<210> 211
<211> 70
<212> PRT
<213> Homo sapiens

<400> 211
Met Glu Leu Leu Gly Ser Asp Arg Ser Pro Val Ser Phe Leu Ile His
1   5   10   15

Trp Leu Pro Thr Arg Leu Pro His Gly Val Ser Leu Gly Ser Arg Leu
                20   25   30

95

Ser Ile Leu Ser Thr Phe Thr Tyr Val Asp Trp Leu Ala Glu Val Ser
            35   40   45

Thr Leu Gly Leu Asp Trp Lys Ile Leu Gln Thr Lys Lys Ala Arg Asp
        50   55   60

Ser Val Pro Pro Thr Ser
65   70

<210> 212
<211> 44
<212> PRT
<213> Homo sapiens

<400> 212
Met Ala Asp Phe Asn Trp Met Leu Tyr Leu Gly Phe Ser Lys Ala Lys
    1   5   10   15

Lys Val Tyr Thr Leu Leu Gln Leu Gly Val Gly Leu Gln Ala Val Cys
            20   25   30

Tyr Ile His Val Leu Val Pro Val Ile Leu Thr Phe
            35   40

<210> 213
<211> 71
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (3)

<220>
<221> UNSURE
<222> (14)

<400> 213
Met Cys Xaa Leu Gln Thr Val Tyr Ser Trp Thr Leu Leu Xaa Tyr Phe
    1   5   10   15

Asn Pro Ser Asp Asn Leu Cys Ile Leu Ile Arg Phe Leu Asn Pro Phe
            20   25   30

Thr Phe Asn Val Met Phe Asp Ile Ser Trp Ile Tyr Ser Cys His Phe
            35   40   45

96

Thr Phe Gly Leu Leu Cys Leu Met Tyr Phe Ser Val Leu Leu Phe Leu
     50   55   60

Pro Tyr Cys Phe Leu Leu His
 65   70

<210> 214
<211> 22
<212> PRT
<213> Homo sapiens

<400> 214
Met Thr Arg Ile Cys Cys Lys Ile His Phe Leu Lys Cys Leu Lys Lys
  1   5   10   15

Glu Met Glu Ile Ser Ser
             20

<210> 215
<211> 55
<212> PRT
<213> Homo sapiens

<400> 215
Met Phe Ser Met Leu Arg Tyr Cys Tyr Gln Cys Pro Leu Pro Leu Lys
  1   5   10   15

Met Thr Ala Glu Ser Lys His Phe Pro Glu Asn Ser Tyr Thr Gln Ile
             20   25   30

Phe Val Pro Leu Phe Phe Tyr Thr Ala Pro Cys Leu Phe Ile Ser Val
             35   40   45

His Ser Ser Tyr His Met Leu
     50   55

<210> 216
<211> 49
<212> PRT
<213> Homo sapiens

<400> 216
Met Pro Ser Ala Phe Glu Asn Asp Cys Arg Ile Gln Thr Phe Ser Arg
  1   5   10   15

Lys Leu Leu Tyr Ile Asp Leu Cys Ser Phe Ile Leu Leu His Ser Thr
            20   25   30

Leu Phe Val His Lys Cys Ser Gln Leu Ile Ser His Val Val Ile Met
        35   40   45

Cys

<210> 217
<211> 62
<212> PRT
<213> Homo sapiens

<400> 217
Met Glu Arg Cys Ala Gly Ser Glu Pro Ala Arg Lys Glu Asn Ile Ser
 1   5   10   15

Arg Leu Phe Cys Arg Met Gln Asn Trp Val Tyr Leu Gln Thr Asp Val
            20   25   30

Leu Pro Ser Lys Gly Leu Ala Thr Thr Phe Asp Pro Gln Ser Lys Val
        35   40   45

Asn Thr Ala Ile His Cys Ser Gln Thr Arg Val His Leu Pro
     50   55   60

<210> 218
<211> 29
<212> PRT
<213> Homo sapiens

<400> 218
Met Thr Thr Ser Ser Arg Thr Ile Ile Gly Lys Ile Gln Asp Leu Ser
 1   5   10   15

Val Leu Ser Thr Val Ser Gln Ile Ser Asp Arg Pro Arg
            20   25

<210> 219
<211> 28
<212> PRT
<213> Homo sapiens

98

<400> 219
Met Gly Phe Tyr His Lys Gly Met Ser Glu Thr Phe Ile Cys Ala Gly
 1   5   10   15

Thr Ser Ala Gln Ser Leu Asn Ala Val Ser Glu Cys
              20   25

<210> 220
<211> 56
<212> PRT
<213> Homo sapiens

<400> 220
Met Phe Ala Ser Glu Phe Phe Phe Leu Val Ile Cys Leu Val Trp Asp
 1   5   10   15

His Val Ala Phe Phe Ser Leu Thr Arg Val Ile Lys Val His Thr Val
              20   25   30

Lys Ser Met Arg Ser Lys Ala Leu Arg Arg Arg Leu Leu Ser Val Asn
          35   40   45

Val Met Ala Gly Ala Ile Arg Leu
      50   55

<210> 221
<211> 97
<212> PRT
<213> Homo sapiens

<400> 221
Arg Ala Arg Ala Glu Ala Ala Arg Ala Arg Gly Glu Val Cys Phe His
 1   5   10   15

Cys Arg Lys Pro Gly His Gly Ile Ala Asp Cys Pro Ala Ala Leu Glu
              20   25   30

Asn Gln Asp Met Gly Thr Gly Ile Cys Tyr Arg Cys Gly Ser Thr Glu
          35   40   45

His Glu Ile Thr Lys Cys Lys Ala Lys Val Asp Pro Ala Leu Gly Glu
      50   55   60

Phe Pro Phe Ala Lys Cys Phe Val Cys Gly Glu Met Gly His Leu Ser
 65   70   75   80

99

Arg Ser Cys Pro Asp Asn Pro Lys Gly Leu Tyr Ala Asp Gly Lys Tyr
            85   90   95

Cys

<210> 222
<211> 36
<212> PRT
<213> Homo sapiens

<220>
<221> UNSURE
<222> (30)

<220>
<221> UNSURE
<222> (33)

<400> 222
Met Ser Glu Ala Ser Leu Ser Leu Lys Glu Gln Lys Phe Cys His Pro
  1   5   10   15

Val Val Leu Tyr Asn Leu Glu Asn Pro Leu Asn Leu Thr Xaa Leu Gln
            20   25   30

Xaa Tyr Leu Leu
        35

<210> 223
<211> 65
<212> PRT
<213> Homo sapiens

<400> 223
Met Leu Cys Gly Val Leu Cys Trp Gly Trp Gly Cys Gln Asp Glu Lys
  1   5   10   15

Gln Pro Cys Gly Cys Ala Leu Gly Phe Thr Ser Gln Thr Ser Val Ala
            20   25   30

Phe Ala Arg Arg Lys Asp Ser Gln Gly Leu His Ile Cys Cys Pro Gln
            35   40   45

Phe Cys Pro Phe Ser Asn Lys Ser His Thr Ser Asn Leu Leu Val Ala
        50   55   60

100

His
65

<210> 224
<211> 804
<212> PRT
<213> Homo sapiens

<400> 224
Ala Lys Pro Leu Thr Asp Gln Glu Lys Arg Arg Gln Ile Ser Ile Arg
 1   5   10   15

Gly Ile Val Gly Val Glu Asn Val Ala Glu Leu Lys Lys Ser Phe Asn
                20   25   30

Arg His Leu His Phe Thr Leu Val Lys Asp Arg Asn Val Ala Thr Thr
            35   40   45

Arg Asp Tyr Tyr Phe Ala Leu Ala His Thr Val Arg Asp His Leu Val
        50   55   60

Gly Arg Trp Ile Arg Thr Gln Gln His Tyr Tyr Asp Lys Cys Pro Lys
65   70   75   80

Arg Val Tyr Tyr Leu Ser Leu Glu Phe Tyr Met Gly Arg Thr Leu Gln
                85   90   95

Asn Thr Met Ile Asn Leu Gly Leu Gln Asn Ala Cys Asp Glu Ala Ile
            100   105   110

Tyr Gln Leu Gly Leu Asp Ile Glu Glu Leu Glu Glu Ile Glu Glu Asp
        115   120   125

Ala Gly Leu Gly Asn Gly Gly Leu Gly Arg Leu Ala Ala Cys Phe Leu
        130   135   140

Asp Ser Met Ala Thr Leu Gly Leu Ala Ala Tyr Gly Tyr Gly Ile Arg
145   150   155   160

Tyr Glu Tyr Gly Ile Phe Asn Gln Lys Ile Arg Asp Gly Trp Gln Val
                165   170   175

Glu Glu Ala Asp Asp Trp Leu Arg Tyr Gly Asn Pro Trp Glu Lys Ser
            180   185   190

Arg Pro Glu Phe Met Leu Pro Val His Phe Tyr Gly Lys Val Glu His

101

Thr Asn Thr Gly Thr Lys Trp Ile Asp Thr Gln Val Val Leu Ala Leu
    210   215   220

Pro Tyr Asp Thr Pro Val Pro Gly Tyr Met Asn Asn Thr Val Asn Thr
225   230   235   240

Met Arg Leu Trp Ser Ala Arg Ala Pro Asn Asp Phe Asn Leu Arg Asp
            245   250   255

Phe Asn Val Gly Asp Tyr Ile Gln Ala Val Leu Asp Arg Asn Leu Ala
            260   265   270

Glu Asn Ile Ser Arg Val Leu Tyr Pro Asn Asp Asn Val Ala Ile Gln
        275   280   285

Leu Asn Asp Thr His Pro Ala Leu Ala Ile Pro Glu Leu Met Arg Ile
        290   295   300

Phe Val Asp Ile Glu Lys Leu Pro Trp Ser Lys Ala Trp Glu Leu Thr
305   310   315   320

Gln Lys Thr Phe Ala Tyr Thr Asn His Thr Val Leu Pro Glu Ala Leu
            325   330   335

Glu Arg Trp Pro Val Asp Leu Val Glu Lys Leu Leu Pro Arg His Leu
            340   345   350

Glu Ile Ile Tyr Glu Ile Asn Gln Lys His Leu Asp Arg Ile Val Ala
        355   360   365

Leu Phe Pro Lys Asp Val Asp Arg Leu Arg Arg Met Ser Leu Ile Glu
    370   375   380

Glu Glu Gly Ser Lys Arg Ile Asn Met Ala His Leu Cys Ile Val Gly
385   390   395   400

Ser His Ala Val Asn Gly Val Ala Lys Ile His Ser Asp Ile Val Lys
            405   410   415

Thr Lys Val Phe Lys Asp Phe Ser Glu Leu Glu Pro Asp Lys Phe Gln
            420   425   430

Asn Lys Thr Asn Gly Ile Thr Pro Arg Arg Trp Leu Leu Leu Cys Asn
        435   440   445

Pro Gly Leu Ala Glu Leu Ile Ala Glu Lys Ile Gly Glu Asp Tyr Val

102

Lys Asp Leu Ser Gln Leu Thr Lys Leu His Ser Phe Leu Gly Asp Asp
465   470   475   480

Val Phe Leu Arg Glu Leu Ala Lys Val Lys Gln Glu Asn Lys Leu Lys
                    485   490   495

Phe Ser Gln Phe Leu Glu Thr Glu Tyr Lys Val Lys Ile Asn Pro Ser
                500   505   510

Ser Met Phe Asp Val Gln Val Lys Arg Ile His Glu Tyr Lys Arg Gln
                515   520   525

Leu Leu Asn Cys Leu His Val Ile Thr Met Tyr Asn Arg Ile Lys Lys
            530   535   540

Asp Pro Lys Lys Leu Phe Val Pro Arg Thr Val Ile Ile Gly Gly Lys
545   550   555   560

Ala Ala Pro Gly Tyr His Met Ala Lys Met Ile Ile Lys Leu Ile Thr
                565   570   575

Ser Val Ala Asp Val Val Asn Asn Asp Pro Met Val Gly Ser Lys Leu
                580   585   590

Lys Val Ile Phe Leu Glu Asn Tyr Arg Val Ser Leu Ala Glu Lys Val
                595   600   605

Ile Pro Ala Thr Asp Leu Ser Glu Gln Ile Ser Thr Ala Gly Thr Glu
            610   615   620

Ala Ser Gly Thr Gly Asn Met Lys Phe Met Leu Asn Gly Ala Leu Thr
625   630   635   640

Ile Gly Thr Met Asp Gly Ala Asn Val Glu Met Ala Glu Glu Ala Gly
                645   650   655

Glu Glu Asn Leu Phe Ile Phe Gly Met Arg Ile Asp Asp Val Ala Ala
                660   665   670

Leu Asp Lys Lys Gly Tyr Glu Ala Lys Glu Tyr Tyr Glu Ala Leu Pro
            675   680   685

Glu Leu Lys Leu Val Ile Asp Gln Ile Asp Asn Gly Phe Phe Ser Pro
            690   695   700

Lys Gln Pro Asp Leu Phe Lys Asp Ile Ile Asn Met Leu Phe Tyr His

                                103

Asp Arg Phe Lys Val Phe Ala Asp Tyr Glu Ala Tyr Val Lys Cys Gln
            725   730   735

Asp Lys Val Ser Gln Leu Tyr Met Asn Pro Lys Ala Trp Asn Thr Met
            740   745   750

Val Leu Lys Asn Ile Ala Ala Ser Gly Lys Phe Ser Ser Asp Arg Thr
            755   760   765

Ile Lys Glu Tyr Ala Gln Asn Ile Trp Asn Val Glu Pro Ser Asp Leu
            770   775   780

Lys Ile Ser Leu Ser Asn Glu Ser Asn Lys Val Asn Gly Asn Asn Lys
785   790   795   800

Val Asn Gly Asn

<210> 225
<211> 60
<212> PRT
<213> Homo sapiens

<400> 225
Met Gly Asp Leu Tyr Lys Lys Glu Leu Lys Lys Arg Arg Asn Val Ile
    1   5   10   15

Ser Met Leu Leu Gln Val Lys Gly Lys Gln Glu Asp Lys Tyr His Lys
            20   25   30

Lys Thr Lys Met Tyr Leu Thr Phe Trp Asp Lys Ile Val Gly Ser Thr
            35   40   45

Glu Asn Trp Asn Leu Glu Leu Pro Val Pro Gln Arg
        50   55   60

<210> 226
<211> 46
<212> PRT
<213> Homo sapiens

<400> 226
Met Phe Tyr Glu Tyr Lys Glu Tyr Asn Glu Cys Tyr Tyr Lys Tyr Ile
    1   5   10   15

His Ala Asn Arg Asp Phe Gln Tyr Pro Thr Phe Ser Gln Phe Arg Leu
                20   25   30

Pro Glu Ile Gly Leu Leu Gly Gln Arg Leu Gln Thr Tyr Phe
            35   40   45

<210> 227
<211> 13
<212> PRT
<213> Homo sapiens

<400> 227
Met Arg Arg Trp Tyr Ile Trp Glu Val Ser Arg Gly Tyr
  1   5   10

<210> 228
<211> 27
<212> PRT
<213> Homo sapiens

<400> 228
Met Phe Leu Arg Tyr Leu Gly Lys Ser Ser Glu Pro Cys Val Ala Asn
  1   5   10   15

Gly Asn Ala Val Val Gln Trp Gly Leu Leu Gly
            20   25

<210> 229
<211> 45
<212> PRT
<213> Homo sapiens

<400> 229
Met Ala Thr Asn Ser Cys Leu Tyr Ser Thr His Lys Gln Phe Gln Tyr
  1   5   10   15

Met Phe Cys Asp Arg Ser Pro Lys Ile Ser Ser Phe Met Val Pro Gly
            20   25   30

Arg Thr Glu Asn Ser Arg Met Gln Leu Leu Lys Leu Phe
            35   40   45

<210> 230

105

<211> 96
<212> PRT
<213> Homo sapiens

<400> 230
Lys Arg Gln Gly Leu Ala Leu Ser Pro Arg Leu Glu Tyr Asn Asp Val
1   5   10   15

Ile Ile Ala His Arg Asn Phe Glu Leu Pro Gly Ser Ser Asn Pro Ser
                20   25   30

Ala Ser Ala Ser Gln Glu Leu Gly Leu Gln Thr Cys Ala Thr Thr Ser
            35   40   45

Ser Phe Phe Ile Phe Cys Arg Gly Arg Val Ser Leu Cys Cys Pro Gly
        50   55   60

Gly Val Ser His Ser Thr Ser Ser Asn Pro Thr Ala Ser Ala Ser Gln
65   70   75   80

Arg Ala Arg Ile Thr Gly Leu Ser His Cys Thr Gln Pro Lys Ala Leu
                85   90   95

<210> 231
<211> 56
<212> PRT
<213> Homo sapiens

<400> 231
Met Leu Ala Leu Ser His Trp Thr Val Val Pro Ser His Pro Leu Ser
1   5   10   15

Pro Ser Leu Asp His Glu His Ser Arg Ala Arg Thr Thr Ser Val Leu
                20   25   30

Phe Thr Ala Val His Pro Ala Leu Thr Gln Cys Leu Met His Ala Leu
            35   40   45

Gly Ala Gln Glu Val Leu Ile Gln
        50   55

<210> 232
<211> 34

106

<212> PRT
<213> Homo sapiens

<400> 232
Met Asp Ser Pro Lys Arg Val Ser Ser Asp Leu Ser Leu Leu Arg Asn
1   5   10   15

Lys Ile Leu Asp Ser Gly Cys Val Cys Phe Arg Cys Cys Gly Thr Gly
            20   25   30

Trp Phe

<210> 233
<211> 34
<212> PRT
<213> Homo sapiens

<400> 233
Met Leu Ser Ala Phe Phe Thr Leu Ile Leu Ser Pro Val Tyr Arg Arg
1   5   10   15

Val Phe Gln Arg Leu His Met Arg Tyr Leu Asn Lys Leu Lys Ala Glu
            20   25   30

Glu Ile

<210> 234
<211> 35
<212> PRT
<213> Homo sapiens

<400> 234
Met Cys Phe Glu Thr Gly Glu Tyr Ser Trp Ser Gly Ala Gly Ala Gln
1   5   10   15

Asn Thr Arg Phe Leu Cys Ser Asp Asn Leu Cys Ser Leu Ala Leu Leu
            20   25   30

Leu Ile Tyr
        35

<210> 235
<211> 40

107

<212> PRT
<213> Homo sapiens

<400> 235
Met Ile Asn Glu Gln Met Asn Ile Ser Glu Lys Leu Val Tyr Ile Ile
 1   5   10   15

Met Asn Arg Leu Val Leu His Phe Tyr Lys Asn Arg Lys Leu Lys Ile
            20   25   30

Lys Lys Lys Ile Leu Pro Lys Lys
         35   40

<210> 236
<211> 60
<212> PRT
<213> Homo sapiens

<400> 236
Met Tyr Lys Cys Leu Leu Glu Ala His Glu Val Tyr Arg Trp Phe Leu
 1   5   10   15

Pro Gln Tyr Leu Thr Ile Val Lys Phe Gln Ala Met Pro Leu Leu Ser
            20   25   30

Thr Thr Phe Ser Leu Arg Ser Thr Gly Ile Trp Leu Arg Phe His Ser
            35   40   45

Asp Asp Leu Leu Ser Glu Thr Leu Arg Leu Glu Lys
         50   55   60

<210> 237
<211> 36
<212> PRT
<213> Homo sapiens

<400> 237
Met Ser Leu Tyr Leu Phe Ser Pro Phe His Cys Pro Phe Phe Phe Pro
 1   5   10   15

His Leu Pro Leu Cys Ser Val Leu Ser Leu Ala Ser Ser Cys Gln Tyr
            20   25   30

Val Asp Phe Cys
         35

<210> 238
<211> 66
<212> PRT
<213> Homo sapiens

<400> 238
Met Phe Phe Tyr Leu Ser Lys Thr Leu Pro Met Phe Leu Leu Lys His
1   5   10   15

His Ser Tyr Ser Lys Thr Lys Val Asn Glu Asn Leu Tyr Gln Asp Asp
            20   25   30

Cys Pro Gln Ser Ser Gly Trp Thr Thr Cys Leu Ser Ser Ile Ile Leu
            35   40   45

Cys Ile Ile Ser Leu Ile His Ser Asn Ser Leu Cys Ile Ile Cys Ala
        50   55   60

Ser Gly
    65

<210> 239
<211> 31
<212> PRT
<213> Homo sapiens

<400> 239
Met Cys His Gly Phe Val Thr Pro Tyr Tyr Tyr Tyr Leu Ser Leu Ala
1   5   10   15

Ser Cys Tyr Cys Pro Tyr Leu Thr Thr Ile Thr Ser Met Ser Ser
            20   25   30

<210> 240
<211> 44
<212> PRT
<213> Homo sapiens

<400> 240
Met Asn Asn Ile Ile Pro Leu Leu Ile Leu Met Gly Leu Phe Phe Leu
1   5   10   15

Ser Gln Ser Ala Leu Ile His Ile Gly Ser Leu Asn Ser Ser Asn Ile
            20   25   30

109

Ile Lys Ser Phe Ser Pro Arg Asp Pro Thr Phe Arg
            35   40